

# Planning and Costing

## In this chapter, you will learn how to:

- Determine the scope of a multimedia project
- Schedule the phases, tasks, and work items required to complete a project
- Estimate the cost, timeline, and tasks required to complete a project
- Write and structure the elements of a multimedia project proposal

**B**EFORE you begin a multimedia project, you must first develop a sense of its **scope** and content, letting the project take shape in your head as you think through the various methods available to get your message across to your viewers. Then you must develop an organized outline and a plan that is rational in terms of the skills, time, budget, tools, and resources you have at hand. Proper project planning is as important as planning the layout and content. Your plans should be in place before you start to render graphics, sounds, and other components, and you should refer to them throughout the project's execution.

### First Person

When I was nine, my father told me about China. He brought the big spinning globe into the kitchen and used a fork to point out where we were and where China was. He explained that if we dug a hole deep enough in the backyard, eventually we would come out in a place called Peking. After school the next day, I began, unannounced, trenching a pit into the rocky soil of our New England backyard. The first layer was tough sod, then there was some topsoil and loam, and then a thick stratum of moist pea

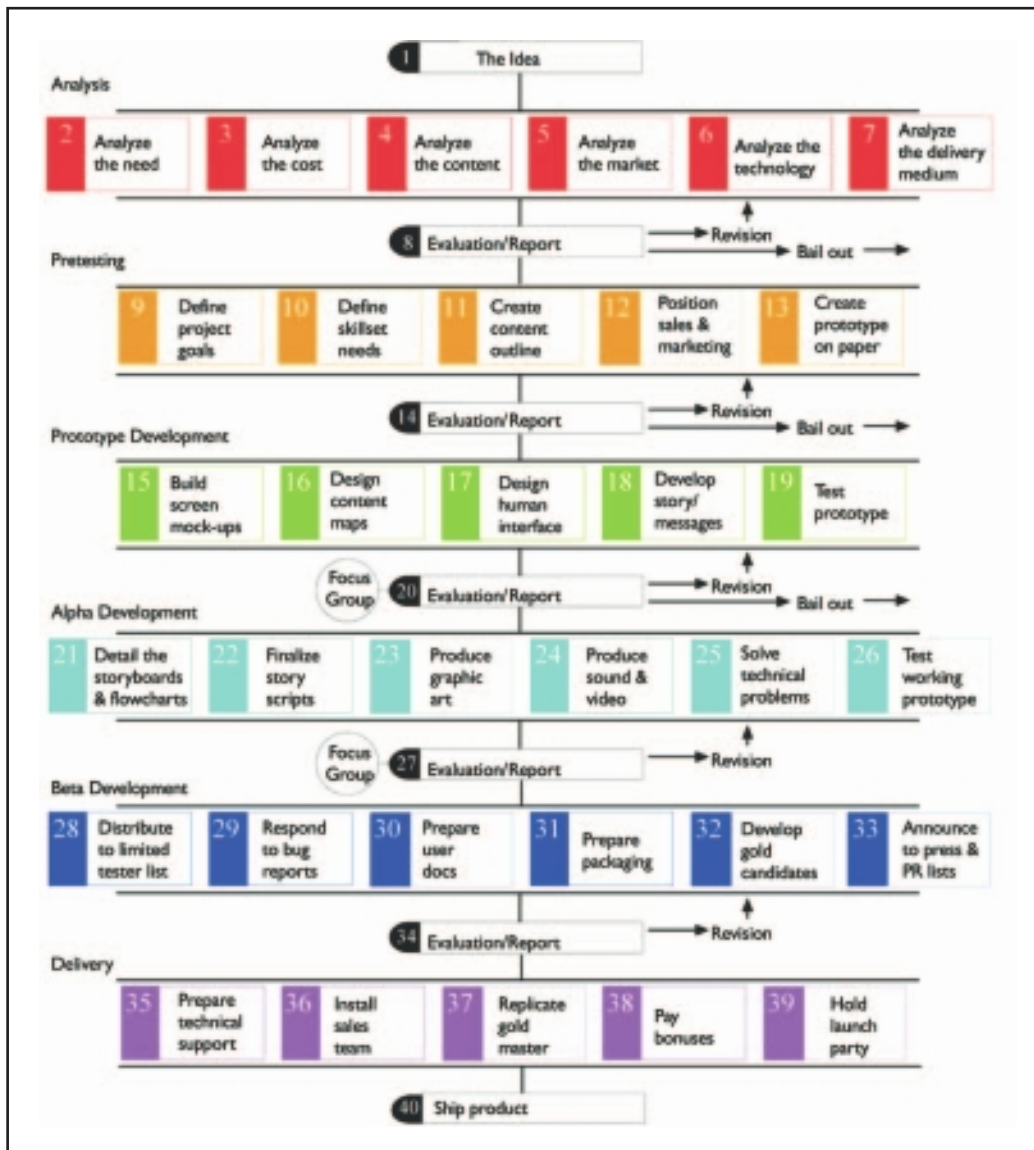
gravel. I was knee-deep into the next layer— hard-packed clay— when my father discovered my work site when he came home at the end of the day. He was pleased I had missed the septic tank by several feet and sternly suggested that more study would be required before I dug any further. This was my first lesson in project planning, not to mention my first experience with project abandonment. Be sure you analyze the requirements of your multimedia project before you go to the toolshed.

## The Process of Making Multimedia

Usually something will click in your mind or in the mind of a client that says, “Hey, wouldn’t it be neat if we could...” Your visions of sound and music, flashy images, and perhaps a video will solve a business need, provide

an attention-grabbing product demo, or yield a slick front end to an otherwise drab computer database. You might want to spark a little interest or a laugh in an otherwise dull meeting, build an interactive photo album for Christmas greetings to your family, or post your company's annual report in a new set of pages on the Web.

Plan for the entire process: beginning with your first ideas and ending with completion and delivery of a finished product. Think in the overview. The stepwise process of making multimedia is illustrated in Figure 9-1. Use this chart to help you get your arms around a new web site or DVD production! Note the feedback loops for revisions based upon testing and experiment. Note also the constant presence of an "evaluation committee" (who could be simply a project manager) to oversee the whole.



**Figure 9-1**  
The process of  
making multimedia

We locked eight people in a room with pizza and out popped a design...

.....  
Mike Duffy,  
Chief Technical Officer,  
Software Toolworks,  
describing how the design  
for the “20th Century  
Almanac” was developed

It is, of course, easiest to plan a project using the experience you have accumulated in similar past projects. Over time, you can maintain and improve your multimedia-planning format, just like a batch of sourdough starter. Just keep adding a little rye and water every time you do a project, and the starter for your next job gets a bit more potent as your estimates become tempered by experience.

## Idea Analysis

The important thing to keep in mind when you are toying with an idea is balance. As you think through your idea, you must continually weigh your **purpose** or **goal** against the **feasibility** and **cost** of **production** and **delivery**.

Use whiteboard, notepaper, and scratch pads as you flesh out your idea, or use a note-taking or outlining program on your computer. Start with broad brushstrokes, and then think through each constituent multimedia element. Ultimately, you will generate a plan of action that will become your road map for production. Who needs this project? Is it worthwhile? Do you have the materials at hand to build it? Do you have the skills to build it? Your idea will be in balance if you have considered and weighed the proper elements:

- What is the **essence** of what you want to do? What is your **purpose** and **message**?
- Who is your **intended audience**? Who will be your **end users**? What do they already know about the subject? Will they understand industry terms (jargon), and what information do they need your project to communicate to them? What will their multimedia playback platforms be, and what are the minimal technical capabilities of those platforms?
- Is there a **client**, and what does the client want?
- How can you **organize** your project?
- What **multimedia elements** (text, sounds, and visuals) will best deliver your message?
- Do you already have **content material** with which you can leverage your project, such as old videotapes or video files, music, documents, photographs, logos, advertisements, marketing packages, and other artwork?
- Will **interactivity** be required?
- Is your idea derived from an existing theme that can be enhanced with multimedia, **or** will you create something totally new?
- What hardware is available for development of your project? Is it enough?
- How much **storage space** do you have? How much do you need?
- What **multimedia software** is available to you?

- What are your capabilities and skills with both the software and the hardware?
- Can you do it alone? Who can help you?
- How much time do you have?
- How much money do you have?
- How will you distribute the final project?
- Will you need to update and/or support the final product?

You can maintain balance between purpose and feasibility by dynamically adding and subtracting multimedia elements as you stretch and shape your idea. You can start small and build from minimum capabilities toward a satisfactory result in an additive way. Or you can shoot the moon with a heavy list of features and desired multimedia results, and then discard items one by one because they are just not possible. Both additive and subtractive processes can work in concert and can yield very useful cost estimates and a production road map.

Consider the following scenario: You have a video clip with four head-and-shoulders testimonials that will be perfect for illustrating your message. So add motion video to your list. You will need to purchase digitizing software, so add that item and its cost to your list as well. But you want to make your product available at a web site frequented by rural students without high-speed connections who will wait minutes for the video to play. Subtract motion video, but add tiny framed still images of the four talking heads (captured with your new video software) using short, one-sentence voice-overs of the speakers (recorded from the video clip). Subtract one of the four testimonials because you discover that particular executive is no longer with the firm and you don't have a signed release. Add animation instead. Subtract. Add. Subtract. In this manner, you will flesh out your idea, adding and subtracting elements within the constraints of the hardware, software, and your budget of cost and expertise.

The time you spend defining your project in this way—reality-testing it against technology and your abilities—might be your most valuable investment, even before you boot up a computer. At any point, you can decide to go forward or bail out.

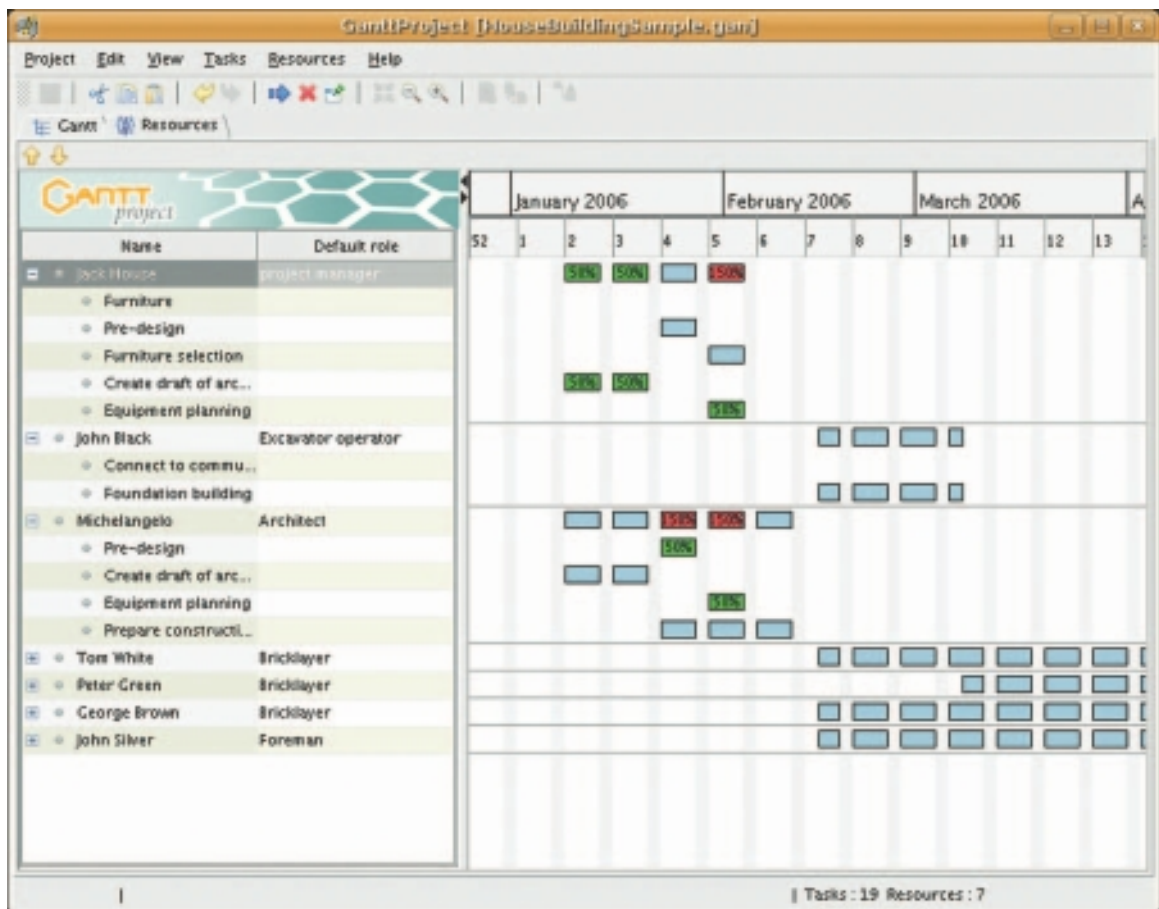
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**TIP** *Treat your multimedia idea like a business venture. As you visualize in your mind's eye what you want to accomplish, balance the project's profit potential against the investment of effort and resources required to make it happen.*

### Idea Management Software

Software such as dotProject, kForge, OpenProj, GanttProject (see Figure 9-2), outlining programs, and spreadsheets such as Excel can be useful for arranging your ideas and the many tasks, work items, employee

resources, and costs required of your multimedia project. Project management tools provide the added benefit of **built-in analysis** to help you stay within your schedule and budget during the rendering of the project itself.



**Figure 9-2** GanttProject, an open-source, web-based integrated project scheduling and management tool, generates helpful documents for instructional designers.

**WARNING** *Budget your time if you are new to project management software. It may be difficult to learn and to use effectively.*

Project management software typically provides **Critical Path Method (CPM)** scheduling functions to calculate the total duration of a project based upon each identified task, earmarking tasks that are critical and that, if lengthened, will result in a delay in project completion. **Program Evaluation Review Technique (PERT) charts** provide



graphic representations of task relationships, showing **prerequisites**, the tasks that must be completed before others can commence. **Gantt charts** depict all the tasks along a timeline.

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[www.dotproject.net](http://www.dotproject.net)

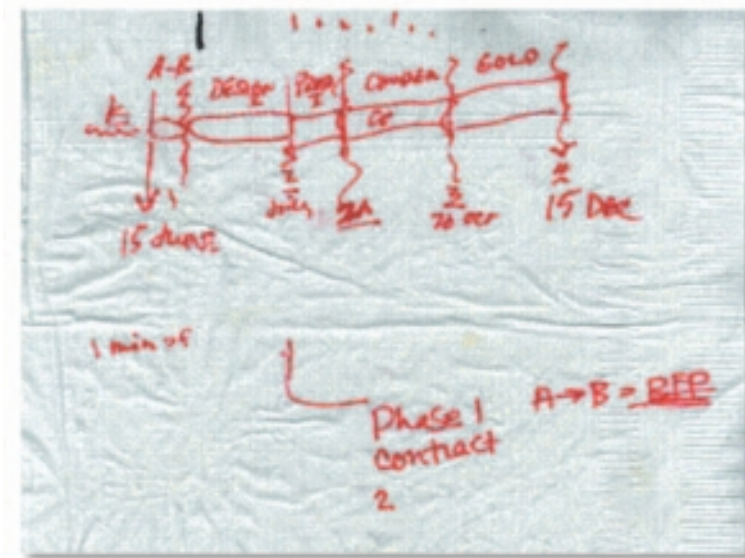
[www.ganttproject.biz](http://www.ganttproject.biz)

[www.kforgeproject.com](http://www.kforgeproject.com)

<http://openproj.org>  
 .....

### The Paper Napkin

While not as high-tech as idea management software, any writing surface can serve as a repository for ideas when you have no other tools at hand. For example, the very early ideas of processing and preliminary planning can be sketched on a paper napkin (a real one is shown in Figure 9-3, which evolved into a complex multimedia project of many months' duration).



**Figure 9-3** The ideas on this luncheon napkin evolved into an animated guided tour for Lotus's multimedia version of 1-2-3 in SmartSuite Millennium.

Around a lunch table, ideas were discussed, refined, and cultivated into a preliminary project plan. A prototype would be built, shown as the A-B portion of the napkin notes, which quite literally answered the question "How do we get from A to B with this idea?" The prototype would then be carefully examined in terms of projected work effort and the technology required for implementing a full-blown version. A more complete plan and cost estimate for full implementation would be developed, and the project would be launched in earnest.

## First Person

Last time I took the red-eye home, the fat guy behind me was pretty ill—sneezing and hawking incessantly over my headrest on the full, hot plane. My glasses blurred with misty droplets, and I wiped the fog away with the damp cocktail napkin under my Coke. That trip cost me four days sick in bed, and I promised I would never fly night coach again to make a meeting, no matter how important.

Then I broke my promise and, after a sleepless night on the plane, found myself sitting in the muggy summer air on the bank of the Charles River, having lunch with Rob Lippincott and his multimedia team from Lotus. I pretended to be alert, but residual white noise from the plane ride beat in my ears, and my dry eyes wouldn't focus in the umbrella sunlight. Rob made intelligent notes with a ball-point pen on a paper napkin while my own input to the creative process

was reduced to grunts and short sentences. The smartest thing I did, though, was slip the paper napkin with its notes into my briefcase as we left the table. After some sleep, I was able to retrieve the napkin and craft those luncheon thoughts into the backbone of a rational project proposal and action plan. We launched the venture, and about ten months later it went gold, shipping with Lotus's new Multimedia product, Lotus SmartSuite Millennium 9.8.

## Pretesting

If you decide that your idea has merit, take it to the next step. Define your **project goals in greater detail** and spell out what it will take in terms of **skills, content, and money** to meet these goals. If you envision a commercial product, **sketch** out how you will sell it. Work up a **prototype** of the project on **paper**, with an explanation of how it will work. All of these steps help you organize your idea and test it against the real world.

## Task Planning

There may be many tasks in your multimedia project. Here is a checklist of action items for which you should plan ahead as you think through your project:

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Design Instructional Framework | <input type="checkbox"/> Assemble Team            | <input type="checkbox"/> Program and Author             |
| <input type="checkbox"/> Hold Creative Idea Session(s)  | <input type="checkbox"/> Build Prototype          | <input type="checkbox"/> Test Functionality             |
| <input type="checkbox"/> Determine Delivery Platform    | <input type="checkbox"/> Conduct User Test        | <input type="checkbox"/> Fix Bugs                       |
| <input type="checkbox"/> Determine Authoring Platform   | <input type="checkbox"/> Revise Design            | <input type="checkbox"/> Conduct Beta Test              |
| <input type="checkbox"/> Assay Available Content        | <input type="checkbox"/> Create Graphics          | <input type="checkbox"/> Create Golden Master           |
| <input type="checkbox"/> Draw Navigation Map            | <input type="checkbox"/> Create Animations        | <input type="checkbox"/> Replicate                      |
| <input type="checkbox"/> Create Storyboards             | <input type="checkbox"/> Produce Audio            | <input type="checkbox"/> Prepare Package                |
| <input type="checkbox"/> Design Interface               | <input type="checkbox"/> Produce Video            | <input type="checkbox"/> Deliver or Install at Web Site |
| <input type="checkbox"/> Design Information Containers  | <input type="checkbox"/> Digitize Audio and Video | <input type="checkbox"/> Award Bonuses                  |
| <input type="checkbox"/> Research/Gather Content        | <input type="checkbox"/> Take Still Photographs   | <input type="checkbox"/> Throw Party                    |

In a white paper about producing educational software, elearnity ([www.elearnity.com](http://www.elearnity.com)) has allocated percentages of effort, as shown to the right:

### Building a Team

Multimedia is an emerging technology requiring a set of skills so broad that multimedia itself remains poorly defined. Players in this technology come from all corners of the computer and art worlds as well as from a variety of other disciplines, so if you need to assemble a team, you need to know the people and skills it takes to make multimedia. (Refer to Chapter 8 for a description of the various skills and talents needed and how others have built successful teams.)

Building a **matrix chart of required skills** is often helpful to describe the makeup of your team. The skills and software capabilities available to you are not as limiting as your list of required hardware—you can always budget for new and more powerful software and for the learning curve (or consultant fees) required to make use of it. Indeed, authoring software is usually necessary only for development of the project, not its playback or delivery, and should be a cost or learning burden not directly passed to end users.

Figure 9-4 shows a skill matrix developed when four medium-sized multimedia development companies came together to bid on a single, large CD-ROM project. If you are building a complex web site, substitute Java/Ruby programmer, HTML/CSS programmer, and Server Specialist into the proper row.

Staying at the leading edge is important. If you remain knowledgeable about what's new and expected, you will be more valuable to your own endeavors, to your team, and to your employer or prospective clients. But be prepared for steep learning curves and difficult challenges in keeping your own skills (and those of your employees) current and in demand. And don't neglect team morale as hours grow long, deadlines slip, and tempers flare.

**TIP** If you are looking for multimedia talent, try placing a Help Wanted ad in one of the job-hunting/help wanted sites on the Internet. Or you can try one of the following web sites:

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[www.careerbuilder.com](http://www.careerbuilder.com)

[www.monster.com](http://www.monster.com)

[www.hotjobs.com](http://www.hotjobs.com)

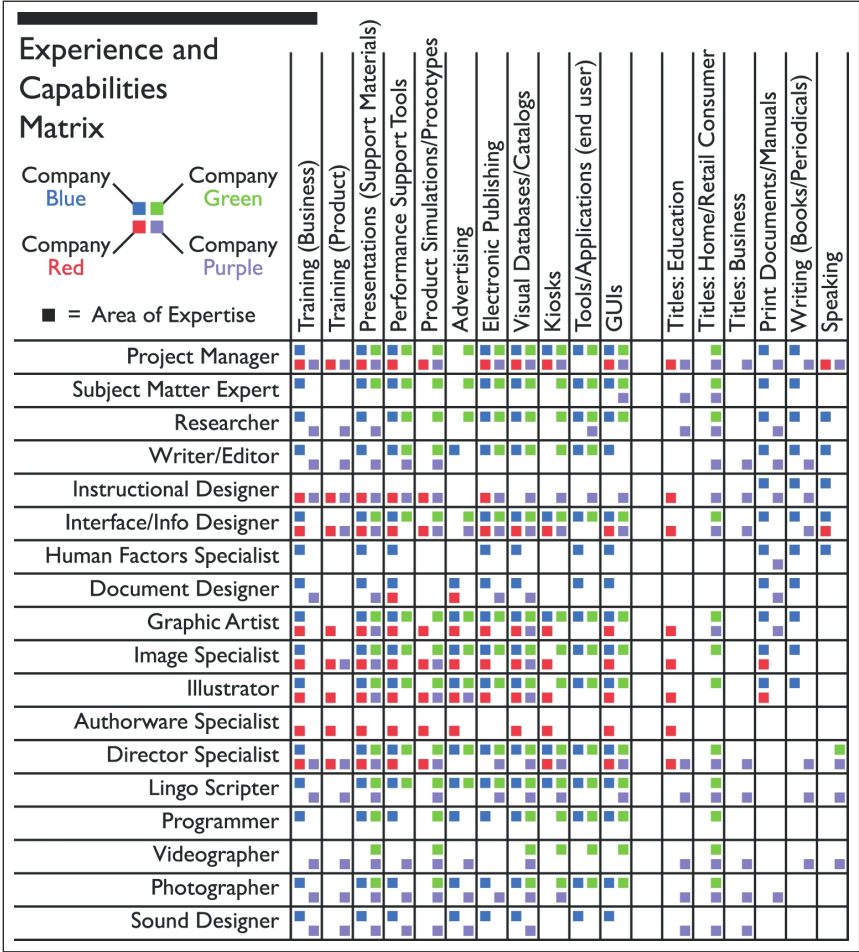
Task	Percentage of Effort
Analyze need	3%
Draft mission statement	1%
Create audience profile	2%
Write objectives	2%
Analyze and outline content	6%
Lay out course map	2%
Define treatment	2%
Select learner activities	2%
Storyboard the course	19%
Author the course	28%
Evaluate the course	20%
Produce media	13%

In a business where success and failure often depends upon our ability to monitor and anticipate emerging technology, job recruiters see multimedia as very challenging. Not only does the fledgling multimedia industry incorporate some of the hottest computer technology tools, it draws on talent that comes from outside the traditional boundaries of data processing and MIS recruitment. The ill-defined but very technical skills needed for multimedia provide us, the industry recruiters, an exceptional opportunity for creativity. Our clients, too, need to be open-minded and flexible about the talent and skills required of multimedia developers.

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Heinz Bartesch,  
Director of Sales and Marketing,  
The Search Firm (San Francisco)



[www.jobbankusa.com](http://www.jobbankusa.com)  
[www.dice.com](http://www.dice.com)  
<http://usajobs.opm.gov>  
[www.odesk.com](http://www.odesk.com)  
[www.elance.com](http://www.elance.com)



**Figure 9-4** A matrix of available skills can assist you in planning for your project.

### Prototype Development

Once you have decided that a project is worth doing, you should develop a working prototype. This is the point at which you begin serious work at the computer, building screen mock-ups and a human interface of menus and button clicks. Your messages and story lines will take shape as you

explore ways of presenting them. For the prototype, sometimes called a **proof-of-concept** or **feasibility study**, you might select only a small portion of a large project and get that part working as it would in the final product. Indeed, after trying many different approaches in the course of prototyping, you may end up with more than one viable candidate for the final product.

During this phase you can test ideas, mock up interfaces, exercise the hardware platform, and develop a sense about where the alligators live. These alligators are typically found in the swampy edges of your own expertise; in the dark recesses of software platforms that almost-but-not-quite perform as advertised and in your misjudgment of the effort required for various tasks. The alligators will appear unexpectedly behind you and nip at your knees, unless you explore the terrain a little before you start out.

**Test** your prototype along several fronts: technology (will it work on your proposed delivery platform or platforms?), cost (can you do this project within budget constraints?), market (can you sell it, or will it be properly used if it is an in-house project?), and human interface (is it intuitive and easy to use?). At this point you may wish to arrange a **focus group**, where you can watch potential end users experiment with your prototype and analyze their reactions. The purpose of any prototype is to test the initial implementation of your idea and improve on it based upon test results. So you should never feel committed or bound to any one option, and you should be ready and willing to change things!

Persuade the client to spend a small amount of money and effort up front to let you build a skeletal version of the project, including some artwork, interactive navigation, and performance checks. Indeed, there may be some very specific technology issues that need thorough examination and proof before you can provide a realistic estimate of the work and cost required. The focused experience of this proof will allow both you and the client to assess the project's goals and the means to achieve them.

Include your experimental pilot as the first phase of your project. At the pilot's conclusion, prepare a milestone report and a functional demo. You will be paid for the work so far, and the client will get real demonstration material that can be shown to bosses and managers. If your demo is good, it will be a persuasive argument within the client's management hierarchy for completing the full-scale project. Figure 9-5 is excerpted from trial calculations that were the result of a prototype five-language CD-ROM project. In the prototyping, office staff read the voice-over script as a "scratch track," like using a stand-in for the real thing; later, professional talent was used in the recording studio. As a result of building a prototype, accurate estimates of required storage space on the disc were possible.

**Calculation Sheet**

CD-ROM Project

Allocation of Disc Space

**Note 1:** The following trial calculations are based upon the file sizes yielded by an early voice rendering of the project's English script.

**Note 2:** File sizes for low-resolution images (72dpi) of 640×480 and 768×512 pixel dimensions are estimated at 768KB each.

**Note 3:** File sizes for high-resolution images (300dpi) may range from 3.7MB to 4.5MB, depending upon image complexity and compression rates. The conservative figure of 4.5MB per high-resolution image is used in these estimates.

**Note 4:** More accurate real estate estimates will be available following finalization of the script and recording of the English version narration.

**Note 5:** Firm count of low-resolution images and their pixel dimensions will be calculated upon script freeze.

**SUMMARY:** There is adequate room on the disc for both sound and images if each language recording is limited to no more than 9 minutes.

**Scratch Track File**

(English)	Duration	(English)	Duration
SNDE01A	18.369	SNDE10A	5.658
SNDE01B	9.180	SNDE11A	23.856
SNDE01C	9.295	SNDE12A	14.314
SNDE02A	17.609	SNDE13A	14.193
SNDE03A	17.932	SNDE14A	7.487
SNDE04A	11.156	SNDE15A	16.172
SNDE05A	18.035	SNDE16A	19.450
SNDE06A	8.050	SNDE17A	5.830
SNDE07A	12.790	SNDE18A	21.443
SNDE08A	16.218	SNDE19A	12.295
SNDE09A	27.468	Total	306.800 Seconds
			5.113 Minutes
		plus Intro Fanfare (Shared by all languages)	30.0 Seconds

**Figure 9-5** Trial calculations are possible after prototyping.

As part of your delivery at the end of the **pilot phase**, reassess your estimates of the tasks required as well as the cost. Prepare a **written report** and **analysis of budgets** and anticipated additional costs. This is also the proper time to develop a revised and detailed project plan for the client. It allows the client some flexibility and provides a reality check for you. At this point you can also finalize your budget and payment schedule for the continuation of the project, as well as ink a contract and determine overrun procedures.

Difficulties may arise if your client is disappointed in the quantity of material delivered or is otherwise not satisfied with your work. If you have kept good records of the time and effort spent during prototyping, you may be able to smooth the rough waters. Remember that developing multimedia is a “trying” experience—try this, try that, then try this again a bit differently—and the creative process soaks up a lot of hours and cost. Listen carefully to the client’s reaction to your prototype, because many problems can be quickly fixed, and all constructive comments can certainly be woven into the next phase of development.

## Alpha Development

As you go forward, you should continually define the tasks ahead, because just as if you were navigating a supertanker, you should be aware of the reefs and passages that will appear along your course and prepare for them. With an **alpha** stage prototype in hand and a commitment to proceed, the investment of effort will increase and, at the same time, become more focused. More people may become involved as you begin to flesh out the project as a whole.

## Beta Development

By the time your idea reaches the **beta** stage of development, you will have committed serious time, energy, and money, and it is likely too late to bail out. You have gone past the point of no return and should see it through. But by now you have a project that is looking great! Most of the features are working, and you are distributing it to a wider arena of testers. In fact, you are on the downhill slope now, and your concern should be simply successfully steering the project to its well-defined goal.

## Delivery

By the time you reach the delivery stage, you are **going gold**—producing the final product. Your worries slide toward the marketplace: how will your project be received by its intended audience? You must also deal with a great many practical details, such as who will answer the support hotline

and run the live chat desk, or whether to co-locate a server or trust the current ISP to handle the predicted increased volume of hits. The alpha, beta, and final gold stages of project delivery for CD-ROM, DVD, and the Web are discussed in Chapter 14.

## First Person

Not every prototype segues naturally into a full-blown project. Sometimes a project is shut down at this milestone due to reality shock: the client chokes on cost-to-completion estimates. Sometimes it's the Reorg Alligator: new managers with new agendas axe the project. Sometimes the client just plain doesn't like your work. Then sometimes a project simply disappears like a dream forgotten by mid-morning.

We were invited to prepare the prototype for a large and intricate intranet site behind a corporate firewall—potentially a two-year involvement. We proposed a first phase, an analysis and definition of the company's structure and information-gathering and dissemination needs so that we could lock down major content areas and the navigation design. We wanted to know how many buttons to put on the main menu and what they would say, before we spent long hours creating the bitmaps and animated GIFs of a neat interface. "No, no," they said, "our guys have put that together already."

So we negotiated for creation of artwork and HTML page styles that would provide a consistent look and feel throughout the site. We set a fixed price and provided a list of deliverables: (1) graphic style and GIF/JPEG elements for main home and subpages; (2) a complete site structure and map with navigationally functional "under construction" pages based on the organizational charts they would provide; and (3) working demo pages for two of the company's departments.

Then we had our first team meeting, and it soon became clear they needed hand-holding while their own Management Information System people transitioned from other tasks and got up to speed in their new jobs as in-house intranet team and webmasters. None had coded a page of HTML, although some had used editors and builders to get pages working. The database guy was stopped dead by an undefined Java error when accessing his massive SQL database. The server guy was still getting set up. The HTML guy was learning his authoring tools. There was neither a graphic

artist nor a handy pool of company graphic art from which our own contribution might spring. Okay, we thought, so they're on the learning curve. We can start from scratch. We took the group leader aside and quietly suggested that she consider bringing on a full-time graphics person to support her team.

During the next weeks, we developed a classy look and feel and theme. After a couple of feedback/change loops, they loved it. We worked up the more detailed bits and pieces of our deliverable and tightened up the organization of their proposed navigation map. By prototype deadline, we had spent all the hours we had estimated for the job, and they had the site up and working in test mode. We had gotten their motor running.

The last time we saw the SQL database programmer was on the afternoon we picked up our milestone check—he was removing shrink-wrap from a new copy of Photoshop, and the HTML guy was deep into Cold Fusion. We never heard from them again.

## Scheduling

Once you have worked up a plan that encompasses the phases, tasks, and work items you feel will be required to complete your project, you need to lay out these elements along a timeline. This will usually include **milestones** at which certain **deliverables** are to be done. If you are working for a client, these are work products that are delivered to the client for approval. To create this schedule, you must estimate the total time required for each task and then allocate this time among the number of persons who will be asynchronously working on the project (see, for example, Figure 9-6). Again, the notion of balance is important: if you can distribute the required hours to perform a task among several workers, completion should take proportionally less time.

Project Calc Sheet			1										2		
c. 5 5 \$112,000															
Origination Fee			Salary	March				April						May	
				1	2	3	4	5	6	7	8	9	10		
1	Content			5											
	Director	40	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	cost		0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
	Editor	20						1	1						
	cost		0.00	0.00	0.00	0.00	0.00	1.12	1.12	0.00	0.00	0.00	0.00	0.00	0.00
	Writer A	40	1	1	1	1	1								
	cost		2.24	2.24	2.24	2.24	2.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Researcher	16													
	cost		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	subtotal number personnel		1.1	1.1	1.1	1.1	2.1	1.1	1.1	0.1	0.1	0.1	0.1	0.1	0.1
	cost		2.46	2.46	2.46	2.46	3.38	1.34	0.22	0.22	0.22	0.22	0.22	0.22	0.22
2	Art														
	Director	35	1	1	1	1	1	1	1	1	1	1	1	1	1
	cost		1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40
	Art 1	18									1	1	1		
	cost		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.01	1.01	1.01		
	Art 2	13													
	cost		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	subtotal number personnel		1	1	1	1	1	1	1	1	2	2	2		
	cost		1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	2.41	2.41	2.41		
3	Technical														
	Director	35									1	1	1		
	cost		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.40	1.40	1.40		

**Figure 9-6** Portion of a spreadsheet used to schedule manpower and project costs

**WARNING** Assigning twice as many people to work on a task may not cut the time for its completion precisely in half. Consider the administrative and management overhead of communication, networking, and necessary staff meetings required when additional staff is added.



Scheduling can be difficult for multimedia projects because so much of the making of multimedia is **artistic trial and error**. A recorded sound will need to be edited and perhaps altered many times. Animations need to be run again and again and adjusted so that they are smooth and properly placed. A QuickTime or MPEG movie may require many hours of editing and tweaking before it works in sync with other screen activities.

Scheduling multimedia projects is also difficult because the technology of computer hardware and software is in constant flux, and upgrades while your project is under way may drive you to new installations and concomitant learning curves. The general rule of thumb when working with computers and new technology under a deadline is that everything will take longer to do than you think it will.

In scheduling for a project that is to be rendered for a client, remember that the **client** will need to approve or sign off on your work at various stages. This **approval** process can wreak havoc with your schedule since it takes time and depends upon factors beyond your control. Perhaps more important, the client feedback may also require revision of your work. In order to protect yourself from a capricious client, you need to have points during the project for **client sign-off** on the work, meaning that he or she has approved the work to that point. If the client changes his or her mind later in the process, then any revisions of the previously approved materials would require a **change order**, meaning that the client agrees to pay the additional costs for making the changes, rather than your having to eat that unbudgeted cost out of your profit margin.

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**TIP** When you negotiate with your client, limit the number of revisions allowed (each revision costs time and money) before you rename the revisions as change orders and bill extra.

## Estimating

In production and manufacturing industries, it is a relatively simple matter to estimate costs and effort. To make chocolate chip cookies, for example, you need ingredients, such as flour and sugar, and equipment, such as mixers, ovens, and packaging machines. Once the process is running smoothly, you can turn out hundreds of cookies, each tasting the same and each made of the same stuff. You then control your costs by fine-tuning known expenses, like negotiating deals on flour and sugar in quantity, installing more efficient ovens, and hiring personnel at a

## First Person

Many times we have heard about the Feedback Alligator. Its mottled skin boasts an Escher-like pattern of lines and marks, showing apparently clear definition along the head and neck, but converging to a brown muddled wash at the tail. When the tail wags this alligator, all hell breaks loose, and multimedia contracts can be severely strained or lost altogether.

Feedback Alligators can appear when you throw a client into the mix of creative people... when necessary-for-client-satisfaction approval cycles can turn your project into an anorexic nightmare of continuing rework, change, and consequently diminished profit. These alligators typically slink out from the damps *after* you have locked down a contract and scope of work, when the creative guys are already being well paid to ply their craft.

For client protection, multimedia creative artists should be hired with a cap on budget and time. They should be highly skilled, efficient, and have a clear understanding of what a project's goals are, and they should be allowed

to accomplish these goals with as much freedom as possible. But good multimedia artists should come close to the mark the first time.

They don't always. For example, you agree to compose background theme music to play whenever your client's logo shows on the screen. You master a sample file and pass it to the client. She doesn't quite like the sound but is not sure why. You go back to the MIDI sequencer and try again. The client still isn't sure that's it. Again, you make up a file and e-mail it to her for review. No, maybe it needs a little more Sgt. Pepper... this is our logo, remember?

The process of client feedback can go on and on forever in a resonance of desire-to-please and creative uncertainty unless you have developed rules for limiting these cycles. While your client might always be right, you will still go broke working unlimited changes on a fixed budget.

Projects can also suffer from "scope creep." If you don't clearly delineate the features and specifications of the project expected

by your client, you will be tempted to add features, enhancements, and improvements. Before long, the project's scope will exceed the original specifications, the budget, and your timeline.

So do two things to ward off the Feedback Alligator. First, make it clear up front (in your contract) that there will only be a certain number of review cycles before the client must pay for changes. Second, invite the client to the workstation or studio where the creative work is done. For sound, tickle the keyboard until the client says, "That's it!" Make 'em sign off on it. For artwork and animations, let the client spend an afternoon riding shotgun over the artist's shoulder, participating in color and design choices. Get the client involved.

If your client contact isn't empowered to make decisions but simply carries your work up to the bosses for "management approval," you are facing the unpleasant Son of Feedback Alligator. Demand a client contact who has budget and design authority.

more competitive wage. In contrast, making multimedia is not a repetitive manufacturing process. Rather, it is by nature a continuous research and development effort characterized by creative trial and error—a “trying” experience, as described previously. Each new project is somewhat different from the last, and each may require application of many different tools and solutions. Philosophers will counsel you that experience is something you get only after you need it!

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**TIP** *To recoup learning-curve costs when you first perform a task, you must factor extra time into your budget; later you can increase your billing rate to reflect your improved skill level.*

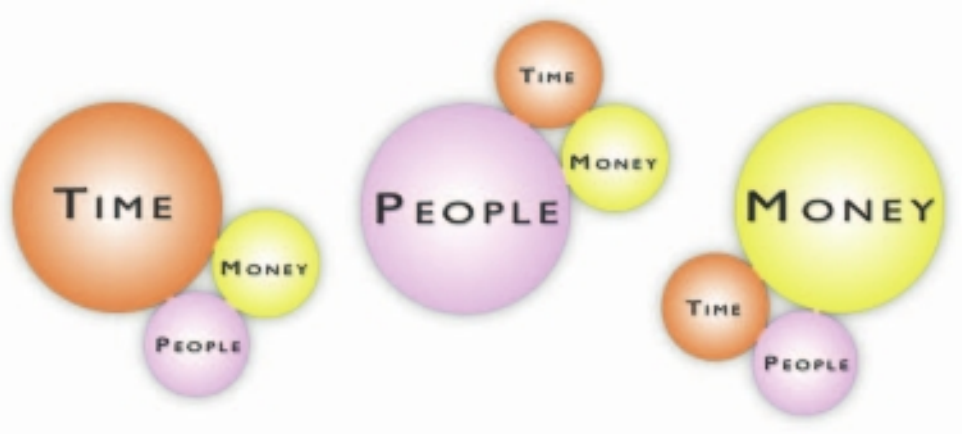
In the area of professional services, let's consider some typical costs in the advertising community. Production of a storyboard for a 30-second commercial spot costs about \$50,000. Postproduction editing time in a professional video studio runs upwards of \$500 per hour. An hour of professional acting talent costs \$350 or more at union scale. The emerging multimedia industry, on the other hand, does not have a track record long enough to have produced “going rates” for its services. A self-guided tour distributed with a software product, for example, may cost \$15,000 for one client and \$150,000 for another, depending upon the tour's length and polish. A short original musical clip may cost \$50 or \$500, based on the talent used and the nature of the music. A graphical menu screen might take 2 or 20 hours to develop, depending on its complexity and the graphic art talent applied. Without available going rates for segments of work or entire projects, you must estimate the costs of your multimedia project by analyzing the tasks that it comprises and the people who build it.

Be sure you include the **hidden costs of administration and management**. It takes time to speak with clients on the telephone, to write progress reports, and to mail invoices. In addition, there may be many people in your workforce who represent specialized skills, for example, a graphic artist, musician, instructional designer, and writer. In this case, you'll need to include a little extra buffer of time and expense in your estimate to pay for these artists' participation in project meetings and creative sessions. Also, remember to include a **line item in your budget for contingencies**, as a little extra padding to cover the inevitable unexpected costs. Adding 10 percent to 15 percent of the total cost is a typical rule-of-thumb contingency amount.

As a general rule, there are three elements that can vary in project estimates: time, money, and people. As illustrated next, if you decrease any one of these elements, you'll generally need to increase one or both of the others. For example, if you have very little time to do a project (an aggressive

schedule), it will cost more money in overtime and premium sweat, and it may take more people. If you have a good number of people, the project should take less time. By increasing the money spent, you can actually decrease the number of people required by purchasing efficient (but costly) experts; this may also reduce the time required.

Do your best to estimate the amount of time it will take to perform each task in your plan. Multiply this estimate by your hourly billing rate. Sum the total costs for each task, and you now have an estimate of the project's total time and cost. Though this simple formula is easy, what is not so easy is diligently remaining within the budgeted time and money for each task. For this, you need good tracking and management oversight.



If you are working for an outside client, you will also need to determine a **payment schedule**. Payments are often divided into **thirds**: one-third up front upon the signing of a contract, one-third as work products are delivered and approved during the alpha and beta development phases, and one-third upon final approval of the completed production.

## Billing Rates

Your billing rate should be set according to your **cost of doing business plus a reasonable profit margin**. Typical billing rates for multimedia production companies and web designers range from \$60 to \$150 an hour, depending upon the work being done and the person doing it. If consultants or specialists are employed on a project, the billing rate can go much higher. You can establish a rate that is the same for all tasks, or you can specify different rates according to the person assigned to a task. The Graphic Artists Guild ([www.gag.org](http://www.gag.org)) provides its members a *Pricing & Ethical Guidelines* manual with pricing information based on real industry surveys. Pricing guides are also available at [www.brennerbooks.com](http://www.brennerbooks.com).

Everyone who contributes to a project should have two rates associated with their work: the **employee's cost to the employer** (including salary and benefits), and the **employee's rate billed to the customer**. The employee's cost, of course, is not included in your estimate, but you need to know

this as part of your estimate—because your profit margin is the difference between the rate you charge the client and the cost to your company, less a proportion of overhead expenses (rental or leasing of space, utilities, phones, shared secretarial and administrative services, and so on). If your **profit margin is negative**, you should reconsider both your **project** plan and your long-term business plan.

Multimedia production companies and web site builders with high billing rates claim their skill-sets and experience allow them to accomplish more work in a given amount of time, expertly, thus saving money, time, and enhancing the finished quality and reliability of a project. This is particularly the case with **larger-scale, complex projects**. Smaller and leaner companies that offer lower billing rates may claim to be more streamlined, hungry, and willing to perform extra services. Lower rates do not necessarily mean lower-quality work, but rather imply that the company either supports fewer overheads or is satisfied with a reduced profit margin. The business of making multimedia is a “low entry barrier” enterprise because all you need to get started is some (relatively) inexpensive computer hardware

## First Person

Back when floppy disks were common, we were asked by a large institution to complete a project that had fallen on the floor. It was really worse than that—the project had actually slipped through the cracks in that floor. The single known copy of work—representing about \$30,000 in paid billings—had been copied to 19 high-density diskettes and stored in a file cabinet. Here, they had been discovered by the secretarial pool and formatted, to be used for WordPerfect documents. The secretaries remembered the whole thing because the stored backups contained protected files, so the disks were unusually difficult to erase! Luckily, bits and pieces of

the project were unearthed on the hard disk of a computer that had been disconnected and stored in the basement. We were able to reconstruct much of the artwork, but not the interactive links.

As we studied the leavings of the embarrassed progenitors, we discovered a trail of missteps and errors. It became clear that the institution made a bad decision in hiring a well-qualified engineering firm at great expense (standard billing rates) to construct a difficult multimedia presentation. CAD/CAM drawings and finite element analysis were the forte of these engineers—not animated icons and colorful bitmaps

with sound tracks. Furthermore, the engineering firm erred in selecting software that performed on the target hardware platform at about the speed of snails chasing a dog. Money had been spent, the product didn't work, and everyone involved was in gray limbo, slinking around, looking for a solution.

We determinedly pulled together the bits and pieces we could find, designed a snappy navigational structure we were proud of, and quickly fixed the big problem for a small fee (based upon our own standard billing rate). The institution, of course, was delighted and became a client of long standing.

and software, not a 70,000-square-foot factory or expensive tooling. You can make multimedia in a living room, basement, or garage. As more and more multimedia producers and web developers enter this marketplace, the competition is increasing and the free hand of supply and demand is driving prices (down).

Purchasers of multimedia services must, however, thoroughly examine the qualifications of a prospective contracting person or company to ensure that the work required can be accomplished on time and within budget. There is no more difficult business situation than a half-completed job and an exhausted budget.

Contractors and consultants can bring specialized skills such as graphic art, C and Java programming, database expertise, music composition, and video to your project. If you use these experts, be sure your billing rate is higher than theirs. Or, if you have a task the client has capped with a not-to-exceed cost, be sure your arrangement with the contractor is also capped. Contractors place no burden on your overhead and administration other than a few cups of coffee, and they should generate a generous profit margin for you during the course of your project. Be sure that contractors perform the majority of their work off-site, using their own equipment; otherwise, federal tax regulators may reclassify these freelancers as employees and require you to pay employee benefits. In 1998, in *Vizcaino v. Microsoft*, the U.S. Supreme Court required Microsoft Corporation to pay employee benefits to hundreds of workers that the court determined were regular employees rather than independent contractors. There are about 20 factors, according to the IRS, in determining whether a worker is an employee or an independent contractor for tax purposes, and companies may be liable for all employment benefits, including (as Microsoft discovered) stock option and stock sharing plans, if the work arrangement is not carefully constructed. However, when these outside workers are not classified as employees, then you run another risk—that they could retain ownership of the work they have created for you, limiting your right to use the material or restrict its use elsewhere. The best way to avoid this is to be sure that your contract with any outside workers clearly specifies the terms of ownership and rights of use of the product for which you are contracting. This “work for hire” issue is discussed in more detail in Chapter 11.

### Example Cost Sheets

Figure 9-7 contains groups of expense categories for producing multimedia. If you use these in your own work, be sure to temper your guesses with experience; if you are new to multimedia production, get some qualified advice during this planning stage.



<b>PROJECT DEVELOPMENT COSTS</b>	
Salaries	Video Production
Client meetings	Studio fees
Acquisition of content	Talent fees
Communications	Fees for licensing stock footage
Travel	Location fees
Research	Equipment rental
Proposal & contract prep	Digital capture & editing
Overhead	Authoring
	Salaries
	Hardware/software
	Consumables
<b>PRODUCTION COSTS</b>	
Management	
Salaries	
Communications	
Travel	
Consumables	
Content Acquisition	
Salaries	
Research services	
Fees for licensing content	
Content Creation	
All content categories	
Salaries	
Hardware/software	
Consumables	
Graphics Production	
Fees for licensing images or animation clips	
Audio Production	
Studio fees	
Talent fees	
Fees for licensing music rights	
Data storage	
	<b>TESTING COSTS</b>
	Salaries
	Focus groups
	Facility rental
	Printing costs
	Food and incentives
	Coop fees (payment for participation)
	Editing
	Beta program
	<b>DISTRIBUTION COSTS</b>
	Salaries
	Documentation
	Packaging
	Manufacturing
	Marketing
	Advertising
	Shipping

**Figure 9-7** There are many costs associated with producing multimedia.

## RFPs and Bid Proposals

Often, potential clients don't have a clue about how to make multimedia, but they do have a vision or a mandate. You field a telephone call, a voice describes a need or a want, and you explain how you (and your company) can satisfy that need. Much of the talk may be instructional as you teach

## First Person

I was downbound from Puget Sound to San Francisco, and the weather was up, with seas running heavy and winds gusting to 60 knots in our face. The Master and the First Mate were on the bridge, the old man sitting curled up in his upholstered high chair on the darkened starboard wing, the First pacing on the rubber mat behind the helmsman. The Third Mate was on watch, leaning over the radar screen and making fluorescent notes with a grease pencil. As I was a guest with no duties, I mostly hung out in the chart room while white water broke over the bows and the shuddering propeller came

out of the sea; wind screamed in the vents on the roof of the bridge. There wasn't much conversation that night, but the Master slowed us to five knots, concerned about the containers lashed to the forward deck. When the young Third Mate came into the chart room, I asked, "Where are we?" and he took a sharp pencil, made a fine point on the chart, and drew a tiny circle around the point. Then he smiled, proud to have good radar bearings. The First Mate came in about a half hour later, and when I asked the same question, he circled an area about the size of a walnut.

As the Master left the bridge for his cabin, I asked him, too, where we were. He took his thumb and rubbed it on the chart in a rough oval about the diameter of his fist, saying, "Somewhere in here," and grinned at me as the ship heaved suddenly and we grabbed for the handholds.

The more experience these professionals had, the larger the circle they drew, and the less they relied upon pinpoint navigation. You should be prudent when costing a multimedia production; precision estimating can wreck your project.

the client about the benefits and pitfalls of multimedia in all its forms. You seldom will glean enough information during this initial discussion to accurately estimate time or cost, so be prepared to answer these queries in vague terms while you present your available skill-sets and capabilities in the most favorable light. If the client is serious and your instruction well received, in short time you may be able to guide this client into good choices and reasonable decisions, working together to conceive and design an excellent product. Discussions will soon turn into design meetings. Somewhere along the way, you will sign a contract.

Occasionally you may encounter a more formal **Request for Proposal (RFP)**. These are typically detailed documents from large corporations that are "outsourcing" their multimedia development work. Figure 9-8 is an example of such a document that provides background information, scope of work, and information about the bidding process. Still, you should note that there is little "hard" information in this document; most bid proposals require contact with the client to fill in details prior to bidding.

### Smythe Industries Request for Proposal

*Summary:* The objective is to produce a family of materials which will develop a unique personality and visual image for the Smythe Campus in Vancouver, British Columbia, home of multiple Smythe subsidiaries and divisions.

As background, Smythe Industries was launched in 1995 following the acquisition of Wilson Aluminum Foundries, Ltd. (Canada) and Fenwick Rolling Mills, Inc. (U.S.A.) and is based in Vancouver. The site is also the headquarters for Global Aluminum Research, a research and development subsidiary. In addition, there are discussions concerning the establishment of a special alloy research institute at the Vancouver campus.

Each of the entities has unique personality traits, management structures, and business cultures which will need to be recognized and incorporated into the design process.

#### **Audience & Message**

Potential Employees – “employer of choice”

Business Development – “partner of choice”

Metals Companies

Academic Institutions

Government/Community officials – “good neighbor/citizen”

Smythe Employees – “credible/proud”

Scientific/Engineering Organizations – “credible research/scientifically advanced”

#### **Tone & Manner**

Innovative, scientifically advanced, sophisticated, credible

Colorful: jewel colors/crisp/high contrast

Energetic, modern, innovative, cutting edge

Geometric lines & shapes (vs. free form)

A human element: photography, illustration, etc.

Personable, warm, intellectually inviting

### Electronic Communications RFP

#### **Multimedia Presentation Capabilities**

*Summary:* The objective is to create a set of tools which will deliver key messages while positioning Smythe Vancouver as an innovative user of technology for communication. There will be two components to this project: a presentation format and a library of images. We would like to develop a library, including still imagery, audio, and QuickTime movies, that can be contained on a set of CDs. Note: all images should be created with the goal of repurposing across different mediums and projects.

The key purpose is to make core messages and the corporate personality come alive by utilizing sound and motion. These multimedia assets will be used for recruiting purposes at career centers, job fairs, and in-house for visiting recruits. They will also serve as presentation support material at scientific and engineering forums.

Smythe will work with the multimedia design firm to create and identify existing television clips, video, and other material which can serve to reinforce key messages.

#### **External Web Site**

*Summary:* As the most visible element of Smythe’s Vancouver identity, the web site will set the stage for positioning the company in the research community as an employer of choice and a key player in esoteric alloy and metallurgical research. The web site will provide easy navigation for users to reach the areas of greatest interest to them, e.g. a particular business division, academic papers, employment opportunities, etc.

**Figure 9-8** Some RFPs provide great detail.

The multimedia design firm will also be expected to create a library of images which can be utilized to update the site periodically. The design firm should also be prepared to provide input on ways to easily update and cost-effectively maintain the site. In addition, the web site should be created so that audio and live imagery can be incorporated and downloaded easily by users who have the appropriate equipment.

#### **Internal Web Site**

*Summary:* The internal web site is the primary medium for employee communication. It will be a useable, interesting tool for internal users and serve to reinforce corporate messages and the campus culture. Since the web site represents and includes different business entities on campus, this internal site will also introduce employees to activities in which other business units and groups are involved. The site will need to be designed with a template format so that it can be easily updated.

#### **Production Elements for all Electronic Communications**

*Icons:* Develop an illustrative style for a family of icons shared across the CD-ROM, internal web site, and external web site.

*Interface Design:* Develop an interface design that provides design parameters and a personality for the internal web site and external web site. (Note: Internal and external web sites should carry a similar look and feel; however, it must be easy to distinguish between the two.)

*Visual Image:* Produce a library of visual images. This will require the additional production of video clips and sound clips.

*Photography:* A photo shoot schedule and plan will be developed with Smythe to most effectively maximize time and resources in shooting photos which can be used in print, in the web sites, and in multimedia materials.

#### **RFP Process**

*Quotations:* Itemize quotes, e.g. project management, copy writing, editing, design, photography, illustrations, etc. Also provide 3 references.

*Note:* Smythe will write the HTML directives in-house and will also be posting to a server which is maintained in-house.

All quotes should be submitted to:

Suzanne Petruski  
Project Manager  
Smythe Industries  
65 Silver Foil  
Vancouver, BC, CANADA

**Figure 9-8** Some RFPs provide great detail. (Continued)

A multimedia bid proposal will be passed through several levels of a company so that managers and directors can evaluate the project's quality and its price. The higher a bid proposal goes in the management hierarchy, the less chance it has of being read in detail. For this reason, you always want to provide an executive summary or overview as the first page of your proposal, briefly describing the project's goals, how the goals will be achieved, and the cost.

In the body of the proposal, include a section dealing with creative issues, and describe your method for conveying the client's message or

meeting the graphic and interactive goals of the project. Also incorporate a discussion of technical issues, in which you clearly define the target hardware platform. If necessary, identify the members of your staff who will work on the project, and list their roles and qualifications.

The backbone of the proposal is the estimate and project plan that you have created up to this point. It describes the scope of the work. If the project is complicated, prepare a brief synopsis of both the plan and the timetable; include this in the overview. If there are many phases, you can present each phase as a separate section of the proposal.

Cost estimates for each phase or deliverable milestone, as well as payment schedules, should follow the description of the work. If this section is lengthy, it should also include a summary.

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**TIP** *Make the proposal look good—it should be attractive and easy to read. You might also wish to provide an unbound copy so that it can be easily photocopied. Include separate, relevant literature about your company and qualifications. A list of clients and brief descriptions of projects you have successfully completed are also useful for demonstrating your capabilities.*

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Finally, include a list of your terms. Contract terms may become a legally binding document, so have your terms reviewed by legal counsel. An example is shown in Figure 9-9. Terms should include the following:

- A description of your billing rates and invoicing policy (for example, what percentage is to be paid up front, how much at certain milestones, and how much upon delivery).
- Your policy on client sign-offs and change order costs.
- Your policy for billing out-of-pocket expenses for travel, telephone, courier services, and so forth.
- Your policy regarding third-party licensing fees for run-time modules and special drivers (the client pays).
- Specific statements of who owns what upon completion of the project. You may wish to retain the rights to show parts of the work for your own promotional purposes and to reuse in other projects segments of code and algorithms that you develop.
- An assurance to the client that you will not disclose proprietary information.
- Your right to display your credits appropriately within the work.
- Your unlimited right to work for other clients.
- A disclaimer for liability and damages arising out of the work.

It is a significant task to write a project proposal that creatively sells a multimedia concept, accurately estimates the scope of work, and provides realistic budget costs. The proposal often becomes a melting pot, in that you develop the elements of your idea during early conversations

with a potential client and add the results of discussions on technique and approach with graphic artists and instructional designers. You blend what the client wants done with what you can actually do, given the client's budgetary constraints, and when the cauldron of compromise cools, your proposal is the result.

### Sample Terms:

We will undertake this assignment on a time-and-expenses basis at our current hourly rate of \$\_\_\_\_ per hour for job title, \$\_\_\_\_ per hour for job title, \$\_\_\_\_ per hour for job title, plus applicable taxes and reimbursement of authorized out-of-pocket expenses. Reasonable travel, express, freight, courier and telecommunication expenses incurred in relation to the project, will be considered pre-authorized. [Client] will be responsible for all licensing fees of third-party products incorporated (with [Client]'s knowledge and approval) into the final product. We will invoice [Client] either upon [Client]'s acceptance of the specified deliverables for each work phase specified above, or monthly, whichever is more often. [Client]'s authorization, either written or verbal, to commence a work phase will constitute acceptance of the previous phase's deliverables. Invoices are due and payable upon presentation. To commence work, we require a retainer in the amount of \$\_\_\_\_, which will be deducted from the final invoice for the project.

Upon our receipt of final payment, [Client] shall own all rights, except those noted below, to the completed work delivered under this agreement, including graphics, written text, and program code. [Client] may at [Client]'s sole discretion copyright the work in [Client]'s name or assign rights to a third party. Ownership of material provided by third parties and incorporated in our work with [Client]'s knowledge and approval shall be as provided in any license or sale agreement governing said materials. We reserve the right to use in any of our future work for ourselves or any client all techniques, structures, designs and individual modules of program code we develop that are applicable to requirements outside those specified above. Further, our performance of this work for [Client] shall in no way limit us regarding assignments we may accept from any other clients now or at any time in the future.

We shall be allowed to show [Client]'s finished work, or any elements of it, to existing and prospective clients for demonstration purposes. If such demonstration showings would reveal information [Client] has identified to us as proprietary or confidential, we shall be allowed to create a special version for demonstrations which omits or disguises such information and/or [Client]'s identity as the client. We shall also be allowed to include a production credit display, e.g. "Produced by [Our Name]" or equivalent copy, on the closing screen or other mutually agreeable position in the finished work. Following [Client]'s acceptance of this proposal we shall also be allowed to identify [Client] as a client in our marketing communications materials.

In the event it is necessary in the course of this assignment for us to view or work with information of [Client]'s that [Client] identifies to us as proprietary and confidential (possibly including customer lists, supplier data, financial figures and the like), we agree not to disclose it except to our principals, associates and contractors having confidentiality agreements with us.

We make no warranty regarding this work, or its fitness for a particular purpose, once [Client] accepts it following any testing procedures of [Client]'s choice. In any event, our liability for any damages arising out of this work, expressly including consequential damages, shall not exceed the total amount of fees paid for this work.

**Figure 9-9** Sample contract terms adapted from language developed by the HyperMedia Group, Inc. (do not use without appropriate legal counsel)



## The Cover and Package

You have many options for designing the look and feel of your proposal. And though we are often warned to avoid judging a book by its cover, the reality is that it takes about two seconds for executives to assess the quality of the document they are holding. Sometimes, they decide before even touching it. Size up the people who will read your proposal and ferret out their expectations; tailor your proposal to these expectations.

If your client judges from the cover of your proposal that the document inside is amateurish rather than professional, you are already fighting an uphill battle. There are two strategies for avoiding this negative first impression:

1. Develop your own special style for a proposal cover and package, including custom fonts, cover art and graphics, illustrations and figures, unique section and paragraph styles, and a clean binding. Do your proposal first class.
2. Make the entire package plain and simple, yet businesslike. The plain part of the approach means not fussing with too many fonts and type styles. This austerity may be particularly successful for proposals to government agencies, where 12-point Times New Roman or 12-point Courier may be not just a de facto standard, but a required document format. If you must submit hardcopy documents in addition to PDF or DOC files, a stapled sheaf of papers is adequate. Don't try to dress up your plain presentation with Pee-Chee folders or cheap plastic covers; keep it lean and mean.

## Table of Contents

Busy executives want to anticipate a document and grasp its content in short order. A table of contents or index is a straightforward way to present the elements of your proposal in condensed overview. In some situations, you may also wish to include an **executive summary**—a prelude containing no more than a few paragraphs of pithy description and budget totals. The summary should be on the cover page or immediately following. In an electronic submission, you can hotlink to the Table of Contents and to important sections.

## Needs Analysis and Description

In many proposals, it is useful to describe in some detail the reason the project is being put forward. This **needs analysis** and description is particularly common in proposals that must move through a company's executive hierarchy in search of approval and funding.

## Target Audience

All multimedia proposals should include a section that describes the target audience and target platform. When the end user's multimedia capabilities have a broad and uncertain range, it is crucial to describe the hardware and software delivery platform you intend to provide. For instance, if your project requires a special browser plug-in, you will need to adjust your multimedia strategy by revising the design or by requiring the end user to download the plug-in. Some clients will clearly control the delivery platform, so you may not need to provide detail regarding system components.

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**TIP** *In your analysis, be sure to include a mention of platform assumptions and technical specifications. For example, "This program will function properly in Internet Explorer 6-9 and Firefox 3 in Windows, and in Safari 4 and Firefox 3 on the Macintosh. No guarantees are provided for functionality on other browsers or operating systems."*

## Creative Strategy

A **creative strategy** section—a description of the look and feel of the project itself—can be important to your proposal, especially if the executives reviewing your proposal were not present for creative sessions or did not participate in preliminary discussions. If you have a library of completed projects that are similar to your proposed effort, it is helpful to include them with your proposal, pointing the client to techniques and presentation methods that may be relevant. If you have designed a prototype, describe it here, or create a separate heading and include graphics and diagrams.

## Project Implementation

A proposal must describe the way a project will be organized and scheduled. Your estimate of costs and expenses will be based upon this description. The Project Implementation section of your proposal may contain a detailed calendar, PERT and Gantt project planning charts, and lists of specific tasks with associated completion dates, deliverables, and work hours. This information may be general or detailed, depending upon the demands of the client. The project implementation section is not just about how much work there is, but how the work will be managed and performed. You may not need to specify time estimates in work hours, but rather in the amount of calendar time required to complete each phase.

## Budget

The budget relates directly to the scope of work you have laid out in the project implementation section. Distill your itemized costs from the project implementation description and consolidate the minute tasks of each project phase into categories of activity meaningful to the client.