The Visual Learner’s Guide to Managing Web Projects

How to plan, organize, build and manage effective Web sites
The Visual Learner’s Guide to Managing Web Projects

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Overview

Building Web sites in-house

If you’re the typical person building a Web site, you’re building one for an organization, such as a company, church, or even a bowling league. If your organization is typical, it would like to build and update its Web site in-house.

Perhaps the site was built by a contractor who didn’t get it right. Maybe it’s maintained by a contractor who charges too much, or the contractor isn’t responsive with updates. Bringing your Web work in-house offers to solve these problems. However, Web work is complex. It requires a high level of coordination and strong project management. If a Web project isn’t managed correctly, building a site in-house can be much more troublesome and costly than hiring outside help.

*The Visual Learner’s Guide to Managing Web Projects* shows executives, managers, and everyone else involved with a Web site how best to build and maintain it. It describes how to plan, train staff, build, and maintain a site so it’s effective and stays that way.

Web publishing process and procedures

This book is not a nuts-and-bolts manual for technical Web development. Rather, it’s a “big-picture” guide that describes site structure and design procedures, as well as a sound site-building process.

The basic site-building process involves Planning, then Organization, and finally Construction. Since Web projects also require staff training and site maintenance, the process described in this book is comprised of five stages:

Plan ➔ Train ➔ Organize ➔ Build ➔ Maintain

This process is the most important factor in creating effective Web sites. Professional Web firms know this, which is why they often spend twice as much time planning and organizing a site as they do coding it. Web professionals know how to save time, effort, and frustration by working according to a systematic process, and this process can work equally well for you.
“Show” rather than “tell”

This book contains numerous graphics, photographs, and screen shots that illustrate site-building concepts. Main topics are presented in chronological order:

**Plan** helps you determine if building a new site is necessary, and if so, how you should proceed. It shows how to define a site’s audience and purpose, and why that’s important.

**Train** details how to get good instruction, plan an effective curriculum, and provide a learning environment for your staff to become skilled at Web publishing.

**Organize** provides guidelines that help you determine what a site should contain and do, structure site content, and plan site construction.

**Build** explains how Web sites should be constructed, tested, and approved.

**Maintain** describes sound procedures for site maintenance, and shows how to implement them.

The book also includes a scenario tracing the progress of a sample Web publishing project, and a site-building checklist to guide you when creating a new site.

We at Visibooks trust you’ll find this book helpful. If you have suggestions to improve it or success stories to relate, please send them to improvements@visibooks.com. Best wishes on your Web publishing projects!
Plan

1. Assess your Web site
2. Identify the decision-maker
3. Select the Web team
4. Conduct an initial meeting
5. Define the audience and purpose
6. Resolve the success criteria
7. List the resources available
8. Choose the right software
Assess your Web site

The first question to ask when beginning a Web project is, “Should we revise our existing Web site or build a new one?” Building a new Web site is something most Web-savvy organizations have done every year to 18 months. For instance, both Microsoft.com and Sun.com have been rebuilt several times since they were first launched.

To determine if your organization should build a new Web site, evaluate your current site, and compare it to effective sites built by other organizations.

Evaluate your current site

Evaluate your organization’s current Web site by asking these questions:

Is it consistent?
Does your site look consistent with your organization’s corporate identity: brochures, ads, letterhead, business cards, etc? Is the look of each page consistent with the look of every other page?

A site that looks consistent with an organization’s identity lets people know they’ve come to the right site. A site that looks consistent from section to section provides familiar surroundings to people clicking through it.
Is it well organized?
Is the site logically organized into no more than seven main sections?

People process information in groups of three to seven, so sites that present content in “bite size” chunks make people feel comfortable and in control.

Is navigation clear?
Does the site incorporate a navigational system that shows people “You are here,” as well as where they can go?

When using a Web site most people want to find specific information quickly. Clear navigation helps them do that.
Is it simple?
Does the site avoid flashy, complex features that get in the way, such as Frames, or links that open new browser windows?

*Using Frames—putting more than one page on the screen at a time—makes a site difficult to update. Links that open new browser windows disable the browser’s Back button: the way most people return to previously-viewed pages.*

Is it audience-tested?
Was the site tested by its prospective audience before it went “live?”

*Audience testing allows an organization to be certain that its site contains and does what people want.*

Did your site pass the test?
If you answer “no” to at least one of the questions above, your organization can benefit from building a new Web site.
Compare your site to others

Compare your site to effective Web sites operated by other organizations. The IBM and Oak Post Web sites are good examples:

IBM used its ample resources and experience to build an excellent Web site. The look is crisp and consistent throughout, and pages load quickly. It contains thousands of pages, but is still easy to navigate. The IBM Web site comprises a high standard against which to compare your organization’s site.

However, an organization doesn’t need to budget millions to build an effective site. For instance, this site operated by furniture store Oak Post is consistent and easy to navigate. It was built for less than ten thousand dollars, and is maintained by internal staff.
**Tip: Building a new site saves time and effort**

Revamping an old Web site is troublesome and time-consuming. It takes a lot of time and effort to dig into unfamiliar code, change things that may not have been done correctly the first time, and make old layouts fit new ideas.

While it seems efficient, site renovation is actually more difficult than creating an entirely new site.

---

**Improving existing sites is a nightmare**

Kyle Shannon, chief creative officer, Agency.com, New York City:

“There is a category of project that is always more trouble than usual. We call them ‘refugee sites.’ These are sites that are already up, but the client wants to improve them. On the face of it, refugee sites seem easy to do because the content is already there… The reality is that these sites are a nightmare. We have to go in there and repair the HTML, re-code the site based on the architecture we create. Refugee sites are significantly more time-consuming and more expensive…”

Shoba Narayan, “Projects From Hell and the Wisdom They Bring”
**Identify the decision-maker**

**Determine who has the final say**

An organization’s Web site may represent several divisions or offices, each with its own ideas and goals. It’s difficult to get them all to agree on what the site should do, contain, and look like.

So, don’t try and facilitate agreement among a site’s different constituents. Instead, deal directly with the person responsible for the site’s success. This Decision-Maker should have the authority to make final decisions about the site. Getting approval from one person minimizes confusion and delays.

**Identify subordinate decision-makers**

Sometimes an Art Director, Communications Director or IT Manager must approve work that relates to their area of expertise. Make sure these people are identified right at the beginning of the project.

**Tip: Avoid committees**

Successful Web projects almost always have one person with final approval authority. The cliché “a camel is a horse designed by committee” exists for a reason; many professionals in creative fields won’t work on projects without a single decision-maker giving approval.

**Ringing the bell**

“Some years ago, we were invited to compete for the Rayon Manufacturers’ Association account. I duly presented myself at their headquarters and was ushered into a pompous committee room.

‘Mr. Ogilvy,’ said the chairman, ‘we are interviewing several agencies. You have exactly fifteen minutes to plead your case. Then I will ring this bell, and the representative of the next agency, who is already waiting outside, will follow you.’

Before launching into my pitch, I asked…’How many people must okay the advertisements?’ Answer: the twelve members of the committee, representing twelve manufacturers.

‘Ring the bell!,’ I said, and walked out.”

Interact with decision-makers according to personality type

If a committee must approve work on a Web site, expect things to move slowly. Approvals will require consensus, and building consensus takes time.

The best bet for getting good work approved by a committee is to tailor interactions with it to the personality type of its highest-ranking member. Present ideas and suggestions in a way that is comfortable to that person, and they’ll move through the committee more smoothly.

Personality profiling is useful in getting work approved by committee; it also helps interactions with a single decision-maker. In Web projects, often what gets approved isn’t the best work, but work presented in the best way.

A cautionary tale about personality type

“I was building a Web site for a firm that produces accounting software. The company’s logo was colorful, so I assumed that they would want a colorful home page design. I created one, then submitted it for approval.

The firm’s president, an accountant, told me that they didn’t like it. The next I heard from him, he directed me to the site of another software company, and told me to build them a site that looked just like that one.

His response was typical of details-oriented people, as most accountants are: go with the tried-and-true. If I had walked him through the design process, explaining exactly how I arrived at that design, he may have gone with the first design which fit better with their corporate identity.”

Ernie Winters, independent Web developer
The personality profiling charts on the following pages can be used to understand people’s motivations and preferences. Use them to form effective strategies for interacting with them throughout the site-building process.

Use the following chart to determine a person’s personality type:

<table>
<thead>
<tr>
<th>Personality</th>
<th>Ego-oriented</th>
<th>Results-oriented</th>
<th>Relationship-oriented</th>
<th>Details-oriented</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typically found in:</td>
<td>Sales, PR, Entertainment, Politics.</td>
<td>Management, entrepreneurial roles.</td>
<td>Upper management, large organizations, HR.</td>
<td>Accounting, Law, Architecture, Writing, Purchasing.</td>
</tr>
</tbody>
</table>
Once you’ve determined a person’s personality type, interact with them accordingly:

<table>
<thead>
<tr>
<th>Ego-oriented</th>
<th>Results-oriented</th>
<th>Relationship-oriented</th>
<th>Details-oriented</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inspire</td>
<td>Be decisive</td>
<td>Get consensus</td>
<td>Be thorough</td>
</tr>
<tr>
<td>Be enthusiastic</td>
<td>Be persistent</td>
<td>Seek harmony</td>
<td>Be tidy</td>
</tr>
<tr>
<td>Be upbeat.</td>
<td>Persuade</td>
<td>Avoid conflict.</td>
<td>Make sure everything’s orderly and accurate.</td>
</tr>
<tr>
<td>Be flexible</td>
<td>Show results</td>
<td>Cultivate a personal relationship</td>
<td>Show expertise</td>
</tr>
<tr>
<td>Let discussions wander, meetings go longer.</td>
<td>Show exactly how you’ve helped others, what they can expect.</td>
<td>Become a confidante.</td>
<td>Give evidence that you know your stuff.</td>
</tr>
<tr>
<td>Have fun</td>
<td>Be persistent</td>
<td>Compromise</td>
<td>Strive for quality</td>
</tr>
<tr>
<td>Be fun rather than “all business.”</td>
<td>Persuade</td>
<td>Cooperate</td>
<td>Make it good rather than fast.</td>
</tr>
<tr>
<td>Write good reports</td>
<td>Assist</td>
<td>Make suggestions</td>
<td>Give guarantees</td>
</tr>
<tr>
<td>Put details in writing after meeting.</td>
<td></td>
<td></td>
<td>Put guarantees in writing.</td>
</tr>
<tr>
<td>Illustrate</td>
<td>Praise</td>
<td>Use logic</td>
<td>Use logic</td>
</tr>
<tr>
<td>Show pictures, colorful charts, models.</td>
<td>Establish personal contact</td>
<td>Show examples</td>
<td></td>
</tr>
<tr>
<td>Be a chum.</td>
<td></td>
<td>Make detailed plans</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Be consistent</td>
<td></td>
</tr>
</tbody>
</table>
Select the Web Team

Learn team roles

Most Web sites are built by teams, rather than by a single person. Building a Web site involves a wide variety of disciplines—editing, layout, graphics, programming—and few people are good at all of them. Also, many Web sites quickly grow beyond a size that one person can manage and maintain.

A typical Web team includes these positions:

**Site Coordinator**
Responsible for organizing a site’s content, developing a work plan, managing the site’s construction, and keeping it consistent. Ideally, the Site Coordinator will have some Web publishing experience, but it’s not necessary. Project management skills and the ability to organize information are more important.

**Site Builder(s)**
Creates the site’s pages and links them together. People who have worked on print publications often do well at site-building. It’s good to have more than one Site Builder on a Web team because this distributes the workload and furnishes a backup.

**Editor**
Writes the site’s text and edits it to be clear and concise. The Site Builders then incorporate the Editor’s text into pages. Often the Site Coordinator and Editor are the same person.

**Graphic Designer**
Creates the site’s look and feel, and produces graphics for it. If your organization has an in-house graphics person who produces print graphics, this person can be trained to do Web graphics as well.
**Technician**
Makes sure that the site’s Web server, forms and functionality work as intended. Network administrators and technical support staff typically do well at this.

Software developers have learned that putting more people on a project actually slows work down. Large teams require more management and coordination, which drains enthusiasm from the team and effort from the project.

Web projects work the same way: To make them run more smoothly, keep your team as small as possible.

One person can do two or even three of the jobs above if they have the skills and the site isn’t large. However, one person can’t do all of them. Make sure the Web team includes at least two people.
Teams shouldn’t include more than eight people. Sociologists have found that humans tend to work best in groups of two to eight. A five-person Web team should be able to build and maintain a site of around 250-2500 pages.

If your organization’s site will contain enough content for many thousands of pages—or grow to that size—distribute the work among several teams. Each team can work on one or more of the site’s main sections.

When operating multiple teams, one person from outside the teams should be responsible for the entire site. Just as a newspaper has an Editor-In-Chief with final say on what gets printed in the Sports or World News pages, a Web Site needs a Site Coordinator responsible for integrating the work of individual teams.
## Determine if outside help is needed

Most organizations require some sort of outside help when building a site. This can be as simple as talking with a Web hosting company about uploading pages, or as extensive as hiring an outside design firm to develop page templates.

Common situations in which outside help is necessary:

<table>
<thead>
<tr>
<th>Situation</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warring fiefdoms</td>
<td>Bring in an arbiter</td>
</tr>
<tr>
<td>Your organization contains several divisions, each of which considers itself the most important. No division is preeminent, but each tries to dictate the site’s content.</td>
<td>Someone from outside the organization can be brought in to “referee” meetings, break logjams, and give an unbiased perspective. If the arbiter keeps the site’s audience and purpose in mind, it can be built according to what external users want—rather than what internal politics demand. Information architects and user-experience consultants—people who specialize in the organization of Web sites—do well in the role of arbiter.</td>
</tr>
</tbody>
</table>
### Situation

No IT staff available  
Your organization doesn’t have any full-time Information Technology staff. Or it does have IT staff, but they’re too busy with their current duties to help with the Web site. Or the IT staff is unfamiliar with Web applications.

### Solution

Host site with a responsive ISP  
Most Internet Service Providers will help with routine tasks such as getting a site’s e-mail response forms to work. Full-service ISPs can assist with the technical aspects of large, sophisticated sites, such as programming and database integration. The key in each case is customer service.

When choosing an ISP for Web site hosting, ask for references from its clients. Good client references indicate good service. Keep in mind, though, that in any ISP the most technically-proficient employees are typically the ones least inclined toward client interaction. The clearer your instructions to them, the better work you’ll get.

No full-time graphic designer  
Your organization doesn’t have a full-time graphic designer on staff to design the site’s look and feel.

### Solution

Hire a professional designer  
A professional graphic designer can be brought in to design page templates. In-house Site Builders can then create the site’s pages based on these templates.

Just as brochures designed by a graphics firm look more professional than the homemade variety, a professionally-designed Web site will exhibit a more polished look. Make sure the designer hired has substantial Web experience: Web design requires specialized knowledge that can’t be learned by working in print or multimedia.
**Tip: Use IT staff only for technical work**

When organizations first began publishing Web sites, Information Technology people were the only ones with enough technical knowledge to do the work. Network administrators, technical support staff and programmers got the job. Now that Web publishing is less technical, limit the involvement of IT staff to the technical aspects of site-building, such as server administration, database integration and enabling e-commerce functions.

IT staffs tend to be very busy with technical work—too busy to put up Web pages. Also, most IT people prefer technical work: a Web server administrator would rather fine-tune Linux code than sit in meetings.

IT people were hired for their programming and networking abilities, not for their design and writing skills. Play to their strengths, and save them for technical work.

*Site built by IT staff*  
*Same site rebuilt by communications staff*
Rather than use IT staff for Web publishing, use them to develop Web applications. For instance, IT staff could be used to connect an organization’s Web site with a database.

The online bookstore at Amazon.com is an example of a Web site that includes this type of Web application:

1. Customer clicks on a book to get more info
2. Web server gets request for book info, asks database
3. Database retrieves current reviews and availability, then sends information to Web server.
4. Web server plugs information into template, creates new page, sends to customer.

Building a site like this still requires a Site Coordinator and a Web-savvy Graphic Designer. However, the site-building team should contain mostly IT staff. The Site Coordinator organizes the site content and work, the Graphic Designer designs the site’s look and templates, and IT staffers build the site’s functionality.
Conduct an initial meeting

Before work on the site begins, hold an initial meeting of everyone involved with building it. The members of the Web team, outside consultants or contractors, and Decision-Maker should all be there.

Explain the process

The Site Coordinator explains how work on the site will progress (according to the Plan—Train—Organize—Build—Maintain process), the role of audience testing, and other aspects of site construction.

Manage expectations

This is also a good opportunity to answer common questions about site construction, such as how long it may take. Give the people involved with the Web project realistic expectations of what it will take to build the site, and a clear idea of how work will proceed.

Initial meetings produce a better site

“When we built our first Web site, it didn’t go well. We just gave our brochure to someone inside the organization and had him start building the site based on it. We got a site that loaded slowly, with strange navigation and blurry graphics. Our members didn’t like it.

Now we’re building a new site, and having several up-front meetings before work begins on it. We’re getting a lot of input as part of the process, and we’re getting a much better site.”

Pamela McElrath, Communications Chair, Greater Richmond Technology Council
Define the audience and purpose

The most important part of any Web project is defining the site’s audience and purpose. An organization can have talented, well-trained people working on its site, but without a clear vision to guide them, the site will be ineffective. Before a site is built, give the people in charge a good idea of who’ll be using it and what it should do.

**Lack of focus cripples site**

“A college I know sent almost a hundred of their faculty and staff to a week of Web training. These people went back and built some decent pages for their offices and classes, but the whole site was still confusing. I wasn’t sure if it was for the students or the people who worked there. This college may have spent a lot of money on training, but they still had a crummy site.”

Troy Telenko, Business Development Manager, ACT Training Corp.

Ask the right questions

The Site Coordinator should sit down with the Decision-Maker and ask:

**Who will be using the site?**

**What should the site do for the organization?**

Getting definitive answers to these questions isn’t always easy. Sometimes defining the site’s purpose requires clarifying the purpose of the organization. Sometimes redesigning a Web site involves redesigning corporate strategy.

Even if this takes weeks or months of high-level wrangling, don’t proceed until the site’s audience and purpose are clear. To build an effective site, you MUST have good answers the questions above.

**Web teams and corporate strategy**

“Sometimes the answers won’t come from corporate strategists, managers, or directors. They’ll come from a more humble source: the…members of the web team who are, incidentally, often fairly junior members of the organization.”

Louis Rosenfeld, “Information Architecture and Corporate Strategy: The Tail Wags The Dog”

Determine if more than one site is necessary

During discussion of the site’s audience and purpose, you may identify several audiences. Several different purposes may be uncovered.

For instance, people planning a health care Web site may want it to serve both new mothers and the elderly. However, the concerns and preferences of the Pediatric and the Geriatric are very different.

A Saturday Night Live skit once advertised a product as both “a floor wax AND a dessert topping!” An effective Web site is not. If the audiences and purposes to be served are divergent, build a separate site for each.

Get audience input

Once the site’s audience is identified, the Site Coordinator should ask a few of the people in its audience to serve as an Audience Test Group. This group doesn’t have to be large: seven or eight people is fine. Just make sure the sample is representative. For example, if a site will be used mostly by women, at least five of the eight group members should be women.

Ask the members of the Audience Test Group what they want to do and find at the site. After all, they’re the people the site is meant to serve. If what they want from the site differs from what the organization thinks it should provide, more discussion is necessary.
**Sample Audience Group Selection Report**

### Site Audience

The audience for the site is likely to be:

- More married than not
- More women than men
- Most have children
- Range in age from mid 20s to mid 60s.

The target demographic for the site is, in order of prevalence:

- Married women with children
- Married men with children
- Single women with children
- Married men and women with no children
- Single women with no children
- Single men with children

As for computer experience, the site's audience is considered to reflect the professional segment as a whole:

About 70% use a computer at work, and approximately 80% of those have e-mail. Almost all of e-mail users are familiar with the Internet, but only half of those are proficient in Web navigation and likely to shop online.

### Selection of Test Group

Eight prospective users of the site were selected to participate in a test group. These users comprise a representative sample of the total site audience in terms of age, gender, and marital status. The test group participants were:

- **CC**, a married woman in her 30s with children. She uses the Web often, and likes to shop online.
- **KN**, a married woman in her 30s with children. She is comfortable using the Web, and shops on the Web occasionally.
- **FE**, a married woman in her 40s with children. She is a Web neophyte, and has never shopped online.
- **JB**, a married woman in her 50s with no children. She uses computers occasionally.
- **CS**, a widowed woman in her 50s with grown children. She uses e-mail, but isn't an experienced Web user.
- **CK**, an single woman in her 30s with an e-mail account who uses the Web on the job.
- **BM**, a married male in his 60s who is new to computers, but enthusiastic about them.
- **RR**, a married man in his 30s who is familiar with computers and an active Web user.
Resolve the success criteria

The Site Coordinator should talk with the Decision-Maker to answer the question, “What will make it a successful site?”

For example, an Association might have these success criteria for its site:

- Become the prime means of communication with members
- Enable members to register for events online
- Be easily updated by in-house staff

When the success criteria are resolved, write them down, along with the audience and purpose. Then the Site Coordinator has the decision-maker sign and approve this document.

**Tip: Document all approvals**

Putting a site’s audience, purpose, and success criteria down on paper helps avoid wasteful mid-project changes. If a fundamental change is suggested during the site’s construction, the Site Coordinator can get work back on track by pointing out what was already approved.

Document approvals throughout the site-building process. Have the decision-maker literally “sign-off” on material to provide tangible proof of approval.

---

**The pros depend on documentation**

“We document everything we do with a client. Before we do any work, we write a detailed work order and have the client sign it. Then we get their signature on designs and mock-ups at several different points during a project. Getting signatures keeps everybody happy and on the same page.”

Catherine Shaw, Web Project Manager, Mediastudio
List the resources available

Now that the site has focus and direction, address the logistical aspects of building it. Creating a Web site requires three basic things: time, people, and money. The Site Coordinator should discuss these things with the Decision-Maker:

- When should the site be finished?
- How much time does each team member have to work on the site?
- How much money is budgeted for the project?

Allocate time for the project

When talking with the Site Coordinator about when the site should be finished, the Decision-Maker will likely ask, “when can it be finished?”

Web development firms take at least three months to build most Web sites. Planning and organization take time, as does getting approvals at each stage of development. Add time for construction and testing, and three months is about the lowest time estimate given by Web pros for building a site.

However, while three months is the lower limit for professionals, you should add at least a month to that. In-house Web staff will have other duties besides site-building, and will take longer if the work is new to them. So for building a site in-house, four months is a good time estimate.
Using four months as a beginning, add two months. No project ever runs as planned, and when the inevitable delays and problems crop up, those extra two months will be needed to deal with them.

In his book *On War*, published in 1832, strategic theorist Carl Von Clausewitz recommended that military staffs allow for a 1/3 margin of error in their planning: A leader who thinks it will take 2 days to march somewhere must allow for 3. This general rule works well for Web site planning, too: If four months is the lower limit to build a site, allow for six.

**Allocate time for team members**

An average Web site takes Web development firms around 200 hours to build. If your organization’s Web team is composed of people who have never built Web sites full-time, allow 250 man-hours or more.

Also, when it’s time for a team member to work on the site, that team member should be given at least twenty hours a week to work on it. If site construction is less than a half-time project, distractions and intrusions from other work will crowd it out.

Maintaining a site after it’s built takes time, too. When allocating people’s time for a Web project, remember that time will be needed daily, weekly, monthly, or at some other interval for updates and maintenance. After the site is up, time for maintenance can be estimated more accurately.
Budget for software, hardware, outside help, training

Site-building and graphics software costs between $100 and $500 per computer for each Web team member. Also, make sure that each member has a reasonably up-to-date computer to run the software.

If your organization doesn’t have an in-house graphic designer, set aside $2000-$10,000 to pay a professional graphic designer to design models and templates for the site.

Good training is essential for your people. The how-to books and online resources listed at the end of this book offer an inexpensive way to acquire top-notch skills. However, many people need classroom training with a live instructor to get started.

Quality Web training in a classroom costs $175-$325 per person per day. If your organization trains five people in the recommended five-day curriculum, plan for a total training cost in the $5000-$8000 range.
Choose the right software

Choose site-building software

When the Web first gained popularity, people hand-coded sites using HTML. Hand-coding remained essential because point-and-click site creation programs weren’t sophisticated enough to produce commercial-quality Web sites. The first versions of FrontPage, Dreamweaver, Fusion, et cetera weren’t very good.

Now the current crop of point-and-click Web publishing programs can be used create high-quality sites. While it’s still helpful to know HTML, it’s no longer necessary. Here are overviews of the most popular site-building programs:

Adobe GoLive

Most of Adobe’s programs are meant to be used by professional graphic designers, and GoLive (version 5; $285) is no different. Its spare interface will be familiar to long-time Adobe users, but people who aren’t graphics professionals may find it challenging to learn. Once mastered, however, GoLive’s advanced features can be used to create professional-quality sites.

Macromedia Dreamweaver

Dreamweaver (version 4; $299) is one of the easiest to use site-building programs, and the clean code it generates looks consistent on a wide variety of computers. Templates are easy to create, and pages can be changed repeatedly with no ill effects. For these reasons, Dreamweaver has become popular among organizations building Web sites in-house.
Microsoft FrontPage

FrontPage (version 2002; $149) is the default choice for many organizations using Microsoft Office. Its interface is similar to Word, and the current version is a vast improvement over the first versions. However, it retains some quirks: graphics can be difficult to insert, and altering the layout of a page can change it in unintended ways. Also, it generates proprietary HTML code that doesn’t work well with all browsers. The proprietary format can be switched off, but when it is some functionality is lost.

NetObjects Fusion

Probably the easiest site-building program for novices to learn. Fusion (version MX; $99) arranges its functions in a colorful, user-friendly interface. Its clear controls allow people to lay out Web pages with precision. But to gain precision, Fusion sacrifices flexibility: pages created with it can’t stretch or contract to fit the size and resolution of the monitor used to view them.
<table>
<thead>
<tr>
<th>Product</th>
<th>Pros</th>
<th>Cons</th>
<th>Best for</th>
</tr>
</thead>
<tbody>
<tr>
<td>GoLive</td>
<td>Powerful</td>
<td>Confusing for most people</td>
<td>Professional graphic designers</td>
</tr>
<tr>
<td>Dreamweaver</td>
<td>Creates pages that accommodate different computers and platforms</td>
<td>Lacks wizards</td>
<td>Organizations that want the best all-around site-building program available</td>
</tr>
<tr>
<td></td>
<td>Straightforward interface</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FrontPage</td>
<td>Familiar Microsoft interface</td>
<td>Proprietary features, code</td>
<td>Organizations that must use Microsoft products</td>
</tr>
<tr>
<td></td>
<td>Comes with Premium version of MS Office</td>
<td>Quirky functionality</td>
<td></td>
</tr>
<tr>
<td></td>
<td>“Wizards” that lead users through some complex tasks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fusion</td>
<td>Easiest for beginners to use</td>
<td>Sacrifices flexibility for precision in page layout</td>
<td>Rank novices</td>
</tr>
</tbody>
</table>
Choose a Web graphics program

Adobe Photoshop

Photoshop is the standard for creating Web graphics. It is the most widely-used Web graphics program, and its latest version (6; $609) includes a variety of Web-oriented features. Geared towards professional graphic designers, its capabilities are overkill for creating and formatting basic Web graphics. For basic Web work, Photo Deluxe, a very limited version, does a fine job. It costs $49.

JASC Paint Shop Pro

Paint Shop Pro (version 7; $99) does most of the things Photoshop can do, but costs under $100. Its low price and relatively uncomplicated interface have led many site-builders to use it for adding graphics to sites.

Macromedia Fireworks

Fireworks (version 4; $199) is a purpose-built Web graphics program, with a sophisticated interface similar to Photoshop’s. It has extensive drawing capabilities, and works well in both creative and basic Web graphics applications.
<table>
<thead>
<tr>
<th>Product</th>
<th>Pros</th>
<th>Cons</th>
<th>Best for:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Photoshop</td>
<td>Extremely powerful</td>
<td>Steep learning curve</td>
<td>Professional graphic designers</td>
</tr>
<tr>
<td></td>
<td>Plenty of books, guides, online</td>
<td>Expensive</td>
<td></td>
</tr>
<tr>
<td></td>
<td>resources available</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Third-party plug-ins extend its</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>functionality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paint Shop Pro</td>
<td>Inexpensive</td>
<td>Not quite as powerful as</td>
<td>Site Builders who aren't full-time designers</td>
</tr>
<tr>
<td></td>
<td>Excellent Web functionality</td>
<td>Photoshop</td>
<td></td>
</tr>
<tr>
<td>Fireworks</td>
<td>Combines drawing and image editing tools</td>
<td>New program without extensive support</td>
<td>Graphic designers who want a program tailored to the Web</td>
</tr>
<tr>
<td></td>
<td>Sold in discounted package with</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dreamweaver</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Tip: Try before you buy

Adobe, Microsoft, Macromedia, and NetObjects all offer free trial versions of their site-building and graphics programs. Before an organization decides which to buy, it should download trial versions so the Web team can evaluate them.

The trial software may be downloaded at:

Adobe GoLive 5
www.adobe.com/

Adobe Photoshop 6.0, Photo Deluxe
http://www.adobe.com/

JASC Paint Shop Pro 7
www.jasc.com/

Macromedia Dreamweaver 4
www.macromedia.com/

Macromedia Fireworks
www.macromedia.com/

Microsoft FrontPage 2002
www.microsoft.com/frontpage

NetObjects Fusion
www.netobjects.com/
**Tip: Implement content-management systems in large, fluid sites**

Some organizations need to put thousands of pages of documentation on their Web sites, or update hundreds of pages every day, or enable hundreds of employees to post information to sites. They require a content-management system.

Content-management systems enable people to post information to a Web site without touching a site-building program. These systems include extensive permission control, ensuring that a person authorized to update one section of the site cannot change other sections. They also automate the approval process, allowing remote review and approval of documents before they’re posted to the site.

These systems tend to be expensive. They require professional configuration and installation on the Web server. They also work best when a site is built to work with a particular system, so it’s best to choose one and implement it right from the beginning of a site-building project.

Here are several companies that produce content-management systems:

- **Interwoven**
  www.interwoven.com

- **Merant**
  www.merant.com/pvcs

- **Reedy Creek Technologies**
  www.reedycreek.com

- **Dispatch**
  www.dispatch.net

- **Vignette**
  www.vignette.com
Train

1. Plan the curriculum
2. Prepare the Web team
3. Find a good instructor
4. Conduct training
Plan the curriculum

Many organizations order how-to books for their Web publishing staff and say, “Okay, you’ve got two weeks to learn this. Go.” Or they send their Web publishing staff to a two-day HTML or FrontPage class, then put them to work on a site. This usually does more harm than good: it teaches people just enough to be dangerous.

Training through books

If you train your Web team with how-to books, choose good ones. Most contain too much “tell,” and not enough “show.” Also, give your team sufficient time to practice—at least a month to work through the books and practice what they’ve learned.

Web-based training

Web-based training is inexpensive, but it’s not very effective for beginners: it’s difficult for people to learn from the computer while they’re working on the computer.

Classroom training

Classroom training costs more than books, but it can be very effective, especially for beginners. Students learn by making mistakes, and having a live instructor around to correct them puts many people at ease.

If you use classroom training, arrange for several days of classes. Everyone on the Web team should get at least two, preferably three days of training in your chosen site-building program. Each team member should also receive a day of Web graphics training.

<table>
<thead>
<tr>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
<th>Day 4</th>
<th>Day 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site-Building Program</td>
<td>Site-Building Program</td>
<td>Site-Building Program</td>
<td>Web Graphics</td>
<td>Site Planning and Usability (morning) Comprehensive Exercise (afternoon)</td>
</tr>
</tbody>
</table>

It’s also helpful to get at least a half-day of “soft skills” training in Web site planning and usability, the things that make Web sites effective. Another half-day can be spent practicing what they’ve learned.
An incomplete education

“Once I taught a two-day Web class at a government agency. I showed the students how to place existing graphics in pages, but there wasn’t enough time to teach them how to format graphics for the web. A few weeks after the class, I visited the sites they’d built, and saw that they’d included BMP files in their Web pages, instead of GIFS and JPGs. The BMPs didn’t show up in Netscape, and they took forever to load.”

David Pierpont, Web instructor, Telematique

Find a good instructor

The most important factor in training is the instructor, so talk directly with a training company’s Web instructor. Good ones have substantial site-building knowledge and good teaching skills, both of which can only be acquired through experience.

To see if a Web instructor is knowledgeable, ask to see some of the sites they’ve built.

To see if an instructor is good at teaching, ask to see their student evaluations. Students know a good teacher when they see one, and positive evaluations indicate a good instructor.
Cover relevant topics

Rather than learn everything that’s possible, it’s better to concentrate on learning what’s probable. Make sure that the books or classes you choose cover real-world tasks such as laying out pages using tables. Then have the Web team practice these tasks to reinforce what they’ve learned.

Here are guidelines for what your team’s training should cover:

Site-building Programs (FrontPage, Dreamweaver, etc.) and HTML

<table>
<thead>
<tr>
<th>The Basics</th>
<th>Utilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Set up a Web site</td>
<td>• Open an existing Web site</td>
</tr>
<tr>
<td>• Format text</td>
<td>• Find and replace</td>
</tr>
<tr>
<td>• Create links to new pages</td>
<td>• Check spelling</td>
</tr>
<tr>
<td>• Create E-mail and external links</td>
<td>• Insert META tags</td>
</tr>
<tr>
<td>• Insert graphics</td>
<td>• Change HTML code</td>
</tr>
<tr>
<td>• Create a navigation system</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Layout and Navigation</th>
<th>Interactivity and Teamwork</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Lay out pages using tables</td>
<td>• Create Web forms</td>
</tr>
<tr>
<td>• Create navigation bars</td>
<td>• Use style sheets</td>
</tr>
<tr>
<td>• Add subsections to site</td>
<td>• Employ templates</td>
</tr>
<tr>
<td>• Place tables within tables</td>
<td>• Upload sites to a Web server</td>
</tr>
<tr>
<td>• Link to an external site using frames</td>
<td></td>
</tr>
</tbody>
</table>

Web Graphics Programs

<table>
<thead>
<tr>
<th>The Basics</th>
<th>Creating Graphics</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Create GIFs and JPGs</td>
<td>• Employ Text tool</td>
</tr>
<tr>
<td>• Resize graphics</td>
<td>• Drawing and painting (zoom, paint, pencil)</td>
</tr>
<tr>
<td>• Crop graphics</td>
<td>• Cut, erase, replace (pen tool, eraser, magic wand, select color)</td>
</tr>
<tr>
<td></td>
<td>• Employ layers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Formatting graphics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Reduce file size of GIFs</td>
<td></td>
</tr>
<tr>
<td>• Balance quality and file size</td>
<td></td>
</tr>
<tr>
<td>• Make GIF backgrounds transparent</td>
<td></td>
</tr>
<tr>
<td>• Convert print graphics to Web format</td>
<td></td>
</tr>
<tr>
<td>• Create thumbnails</td>
<td></td>
</tr>
</tbody>
</table>
## Site Planning and Usability

### Planning
- Identify the site’s Audience and Purpose
- Determine the resources available to build it
- Get approval for work

### Organization
- Develop a work plan
- Gather and organize site content
- Conduct user surveys

### Construction
- Proceed according to work plan
- Coordinate work of production team
- Test and review site

### Usability
- Being clear and concise
- Chunking and group information
- Site blueprint

### Maintenance
- Establish site update procedures and guides

### Comprehensive Exercise
- Generate a site blueprint for a Web site of your choice. Then build a site based on that blueprint that includes:
  - At least 12 pages
  - A consistent, user-friendly navigational system
  - Links to external sites using frames
  - E-mail links
  - At least one original graphic on each page, and at least one illustrative graphic aligned with text.
  - A table-based look and layout that stays consistent throughout the site
  - A non-functioning response form
Tip: Include an HTML overview

Although current site-building programs can be used to lay out sites with precision, sometimes manual code-tweaking is required. So make sure that training includes an overview of HTML.

This overview should impart a basic understanding of how HTML works, and show how to make changes to the code of a page. Even if it only teaches Web team members how to delete a basic `<p>` tag, training in HTML will be helpful to them in their day-to-day work.

Train the Technician differently

The team’s Technician should be familiar with the site-building program and how to create Web graphics. However, since most of the Technician’s work will involve coding and programming, HTML and JavaScript training may be substituted.

Also, the Technician should learn at least the basics of Web server administration, such as how to upload files to a Web server, and how to install and configure an e-mail form-handling script.
Prepare the Web team

It’s important to make sure that everyone on the Web team knows Windows well. A working knowledge of Windows makes it much easier to learn programs that run on it.

Assess the computer knowledge of team members

Each member of the Web team should be familiar with:

- How directories work
- File extensions
- Windows Explorer
- Basic word processing

A large percentage of people who take Web publishing classes aren’t proficient with computers, even if they say they are. Before Web training begins, it’s a good idea to give each member of the Web team a quick test. Ask them to perform the following tasks:

- Create a folder on their computer’s hard drive
- Create a folder within a folder
- Name the file extension of a Microsoft Word or Corel Word Perfect document (.doc or .wpd, respectively)
- Copy a paragraph from one document and paste it into another.
Bring people up to speed

If a team member has trouble performing any of the tasks above, set aside a couple of hours for them to learn Windows basics. Have a computer-savvy team member walk them through Windows Explorer (creating folders and becoming familiar with file extensions), as well as the Cut, Copy, and Paste commands in a standard word processing program.

People being trained should perform these tasks hands-on, using the computer they work on every day. When they can perform all these tasks on their own with no additional help, they’re ready for Web training.
Conduct training

Schedule breaks and practice

Whether they’re learning from self-study books or in the classroom, people need frequent breaks to rest and process what they’ve learned. Also, long days can be counterproductive: few students learn anything new after about 3:30 in the afternoon.

Students need breaks

“Sometimes I’d get frustrated trying to do something, but the more I struggled with it, the harder it got. Then I’d take a break and when I came back I was able to work it out… Learning to build Web sites was fun, but midway through the afternoon my brain was fried!”

Susan Armstrong, Web student

For classroom training, here’s a daily schedule that works well:

9:00 Class begins  
10:30 Break  
10:45 Training resumes  
12:00 Lunch  
1:00 Afternoon session begins  
2:30 Break  
2:45 Training resumes  
3:30 Instruction ends. Practice/Question and answer session starts  
4:30 Class ends
Provide opportunities to practice

You can’t learn to build professional-quality sites in a week or two. The finer points of Web publishing are learned through working on sites and talking with other Web staffers. Just like a doctor in residency or an apprentice plumber, people building Web sites complete their education on the job.

Give your team the opportunity to practice immediately after training. With Web skills, it’s “use them or lose them.” If you can’t put the Web team to work on its site right away, give them a peripheral Web project to work on.

When the team does begin working, the first pages it produces probably won’t be impressive, but the quality of its work will improve rapidly with practice.
Organize

1. Determine site content
2. Structure content groups
3. Create the site blueprint
4. Create the work plan
Determine site content

The Web team can now address the question “What should the site contain and do?” A good place to start is by brainstorming.

Brainstorm

Have the Web team members meet in a conference room away from interruptions. Everyone can propose ideas about what the site can do and include. “Can,” not “should,” is the watchword when brainstorming: no idea is too silly, because the point is to generate as many ideas as possible. Be sure to have someone write them down.

Evaluate

The Site Coordinator takes the list of ideas proposed and evaluates each for relevance, according to the site’s audience and purpose. Each idea is scrutinized according to the criteria “Will this be useful to the site’s audience?” and “Does it serve the site’s purpose?” Content and features that aren’t relevant are removed. List the remaining ones.

Survey

To be certain that a site contains what its audience wants, you must ask audience members themselves. At this stage, show the site’s content list to the Audience Test Group.

Ask each test group member if any content seems unnecessary, and what content is particularly appealing. Along with their answers, they may suggest good content ideas that weren’t previously considered.

After speaking with the Audience Test Group, revise the site’s content list based on its members’ input.
Get approval

Show the content list to the Decision-Maker, make any necessary changes, then have the Decision-Maker sign off on it. Since this is the first document that the Decision-Maker approves, establish a precedent for timely approval.

Tip: Limit approval periods

Open-ended approval periods slow things down, so when submitting the content list, try to have the Decision-Maker agree to review it within a certain period of time. If the Decision-Maker is the sole reviewer, two days is ideal. That way, if there are any changes to be made, the content list can be resubmitted and approved within a week.

If the Decision-Maker solicits input from the organization’s management team, count on the approval process taking 1-3 weeks. Whether the content list is reviewed by one person or many, try to limit the approval period to 2-6 days, and maintain that limit throughout the site-building process.
Structure content groups

Understand the importance of structure in Web sites

When information is hyperlinked, as on the Web, it can become confusing and hard to find. Web sites provide a logical, organized structure for information so it’s easy to find.

In traditional media such as books and video, pages and frames are viewed in sequence. A linear structure strings documents/frames/etc together like beads on a string, front to back, beginning to end.

Hypermedia, in which it’s possible to jump from page to page and screen to screen, are non-linear. Hypermedia have no built-in organization, so it’s easy to get lost.

Web sites are organized hypermedia. They show people where they are, and where they can go. Information is structured and organized so it makes sense.
Tip: *Think user-friendly*

Usability is becoming recognized as the most important factor in the success of Web sites. A site can look sleek and employ sophisticated technology, but if it’s not user-friendly, people will avoid it.

The converse is also true: a site can be simple, but it’s likely to be well-received if it makes information easy to find and understand.

User-friendly success stories

**IBM makes site easier to navigate, increases sales**

“The best result of the relaunch is that the IBM Web site is much easier to navigate...The company says in the month after the re-launch, traffic to the Shop IBM online store increased 120 percent, and sales went up 400 percent.”

Jim Battey, “IBM’s Redesign Results In A Kinder, Simpler Web Site”

**Schwab makes site easier to use, gains 1/3 more customers**

“The redesign is mainly an attempt to make the interface easier to use...Officials said the focus has been on improving usability and simplifying navigation...With 6 million active accounts, Schwab last week disclosed that customer assets were up 36 percent for the year.”

Jeffrey Schwartz, “Schwab Redesign Stresses Usability”
Internet Week: www.internetwk.com/shared/printableArticle?doc_id=INW19990520S0006

The next several sections of this book include tips on making a site user-friendly. More information on Web usability can be found in these sites and books:

**www.usableweb.com**
Keith Instone’s collection of links and information about human factors in Web design.

*The Non-Designer’s Design Book*, Robin Williams
A good introduction to the basic principles of document design. It concerns printed documents, but applies directly to the Web.

*Don’t Make Me Think! A Common Sense Approach to Web Usability*, Steve Krug
A straightforward, informative look at what goes through people’s minds when they’re trying to use a Web site. Excellent resource.
Determine content groups

The Site Coordinator organizes the site’s list of content into a hierarchy of related groups. A sophisticated chart isn’t necessary. A tree diagram sketched out with pencil and paper will do, because this content hierarchy will change frequently before it’s finalized.

Tip: Chunk content into small groups

When confronted with groups of over seven items, people get confused and forgetful. That’s why license plates and social security numbers are segmented into groups of two, three and four digits: they’re easier to remember that way.

To make the site’s information easier to grasp, arrange it in groups of three to seven. The Web site pictured below chunks its main-level content into three groups:
Group content according to the things people want to find (object-based), or according to the tasks people want to accomplish (task-based). Examples of each are below:

**Object-based hierarchy**

- **Ancient Art**
  - **Egyptian**
  - **Greek**

**Task-based hierarchy**

- **Buy a Car**
  - **Check Prices**
  - **Find a Dealer**

Both object-based and task-based groupings can be used within the same site. For instance, the content for a computer company’s site could be grouped this way:

- **Home Page**
  - **Computer Support**  
    - **Find the Correct Software Driver**
    - **List of Drivers**
Sometimes sequential organization can also be used. For instance, articles can be broken up into several Web pages, with links to go forward and back among the pages.
Create the site blueprint

The site blueprint is a chart showing how the site’s content groups are organized. Next to the statement of audience and purpose, the site blueprint is the most important document used to build a Web site. It guides the Web team in building the site, just as the blueprint of a house guides its construction.

The site blueprint also keeps the site organized over time. It shows where new pages and sections should fit into the site. The site blueprint is most often shown as a tree diagram.

This site blueprint…

…was used to create this web site:

![Site Blueprint Diagram]

…was used to create this web site:
Put the site blueprint on paper

The Site Coordinator can create the site blueprint using a flow-charting or diagramming program. The Organization Chart module in PowerPoint is adequate for most sites. To produce a site blueprint with more sophisticated graphics, use a flow-charting program such as Visio.

Getting to the Organization Chart module in PowerPoint

Solicit audience input

Once the site blueprint has been created, the Site Coordinator should show it to the Audience Test Group—the small group of site audience members that reviewed the site’s proposed content. Ask them:

- Does it show any content groups that you consider unnecessary?
- Does it leave anything out that’s important to you?
- Does the arrangement of groups make sense to you?

Revise the site blueprint

Like the site’s content list, the site blueprint should be revised based on the input of the Audience Test Group.

Get approval

After the Audience Test Group provides its impressions and the site blueprint is revised accordingly, have the Decision-Maker review it. After it’s approved, make a copy of the site blueprint and have the Decision-Maker sign off on it.
Create the work plan

The work plan shows how work on the site should proceed. To create it, the Site Coordinator first meets with the other members of the Web team so everyone can reach agreement on their tasks.

Finalize roles and responsibilities

The Site Coordinator checks with the members of the Web team to make sure that they’re comfortable with their roles. Usually the members of a Web team will perform the following tasks:

**Editor**
Writes and edits the site’s text content.

**Graphic Designer**
Provides design templates and original graphics.

**Site Builders**
Take text and templates and build the site’s pages.

**Technician**
Integrates forms and other interactive elements with programs on the server.

**Site Coordinator**
Keeps work on track, checking to see if things are done right and on schedule.

Draft the work plan

After defining the team members’ tasks, the Site Coordinator draws up the work plan, which should include:

**A task list**
A list of all the things that need to be done to build the site: creating pages, writing and editing text, composing graphics, programming, etc.

**A schedule**
The dates when each of these tasks will be started, checked, and completed.

**Approval points**
Points during site construction at which the Decision-Maker and others must give approval.
## Sample Work Plan

<table>
<thead>
<tr>
<th>Step</th>
<th>Task</th>
<th>Date</th>
<th>Who</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site Blueprint/</td>
<td>First draft</td>
<td>2/16/99</td>
<td>Site Coordinator, Site Builders (2)</td>
<td></td>
</tr>
<tr>
<td>Design Plan</td>
<td>Web Team</td>
<td>2/17/00</td>
<td>Site Coordinator, Site Builders, Editor,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Review</td>
<td></td>
<td>Graphic Designer</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Leadership</td>
<td>2/29/00</td>
<td>Leadership team</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Review/</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Approval</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final</td>
<td>Mid March</td>
<td></td>
<td>Site Coordinator, Site Builders</td>
<td></td>
</tr>
<tr>
<td>Site Content</td>
<td>All first drafts</td>
<td></td>
<td>Editor, Site Coordinator</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Web Team</td>
<td></td>
<td>Site Coordinator, Site Builders, Editor,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Review</td>
<td></td>
<td>Graphic Designer</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Leadership</td>
<td></td>
<td>Leadership team</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Review/</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Approval</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final</td>
<td>Mid April</td>
<td></td>
<td>Editor</td>
<td></td>
</tr>
<tr>
<td>Design Models</td>
<td>First drafts</td>
<td></td>
<td>Graphic Designer, Site Builders</td>
<td></td>
</tr>
<tr>
<td></td>
<td>of templates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Web Team</td>
<td></td>
<td>Site Coordinator, Site Builders, Editor,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Review</td>
<td></td>
<td>Graphic Designer</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Leadership</td>
<td></td>
<td>Leadership team</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Review/</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Approval</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final</td>
<td>Mid April</td>
<td></td>
<td>Graphic Designer</td>
<td></td>
</tr>
<tr>
<td>Step</td>
<td>Task</td>
<td>Date</td>
<td>Who</td>
<td>Notes</td>
</tr>
<tr>
<td>-----------------</td>
<td>-----------------</td>
<td>---------------</td>
<td>------------------------------------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>First Site Draft</td>
<td>First draft</td>
<td></td>
<td>Site Builders</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Web Team Review</td>
<td></td>
<td>Site Coordinator, Site Builders,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Editor, Graphic Designer</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pilot Team Test</td>
<td></td>
<td>8 Audience members</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Revise</td>
<td></td>
<td>Site Builders</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Leadership Team</td>
<td></td>
<td>Leadership team</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final</td>
<td></td>
<td>Beg. May</td>
<td>Site Builders</td>
<td></td>
</tr>
<tr>
<td>Go Live</td>
<td></td>
<td>06/01/00</td>
<td>Site Builders, Hosting company</td>
<td></td>
</tr>
<tr>
<td>Update</td>
<td></td>
<td>Ongoing</td>
<td>Web Team</td>
<td>Different team members will have different updating responsibilities.</td>
</tr>
</tbody>
</table>
Consider building a work site

A work site is a small Web site containing information about another site being built. Work sites provides a convenient place to get information about Web projects, letting the Web team, the Decision-Maker, and anyone else involved with the site stay current on its construction.

If the domain of the Web site being built is www.yoursite.com, the work site could be posted to a subdirectory such as www.yoursite.com/project.
Build

1. Generate design models
2. Prepare content
3. Construct a working draft
4. Conduct audience testing
5. Post the site live
Generate design models

Create a model home page

Designing a site’s look and feel begins with the Graphic Designer creating a model of the site’s home page. When designing it, the Graphic Designer considers factors such as:

• The site’s statement of audience and purpose
• The site blueprint
• The organization’s existing visual identity
• The size of the site

In the example below, the Web site’s look echoes the look of the company’s existing visual identity, as displayed in its business cards and letterhead:

Web site

Letterhead, Business card
Also, the site’s size will determine its layout to a certain extent. Large sites need both horizontal and navigational areas. Small sites can use one or the other.

When the model is finished, have it reviewed by the Web team to make sure it can be easily updated, downloads quickly, and includes a user-friendly navigational layout. It should also be shown to the Audience Test Group to solicit their impressions.

**Get approval**

Before the Site Coordinator presents the home page design to the Decision-Maker, plan how you’ll present it. Design is subjective, and whether a design is approved or not depends to a great extent upon the perceptions and personality of the reviewer.

When submitting site designs for approval, use the personality profiling charts on pages 11 and 12 to present designs in a way that’s comfortable to the Decision-Maker.
Create main- and sub-section models

After the design for the home page is approved, the Graphic Designer creates a model for the site’s main section pages. This model is based on the design of the home page.

When the main-section model is approved, design model pages for the site’s subsections. The designs of these are, in turn, based on that of the main sections:

- **Home Page**
  - Second-level design model. Used to generate pages A and B.
  - Third-level design model. Used to generate look of numbered pages.

![Diagram of site structure](image-url)
Tip: Incorporate user-friendly design principles

Clean layout
The Graphic Designer should employ an uncluttered layout. Since Web pages do double-duty with both information and navigation, design features shouldn’t get in the way.

Here’s an example of clean, simple layout that makes information easy to understand:

CAPS
Color, Alignment, Proximity, and Size, or CAPS, can be used to express relationships among information. Related items can be the same color, size, or close together.

Color: Make one color mean one thing. In this case, “blue” means “navigation.”
**Alignment:** Align similar information along the same axis:

All content is aligned along the same line, clearly defining what is content and what isn’t.

**Proximity:** Group related items close together. Employing subheadings above paragraphs is a good use of this principle:

Subheadings are placed directly above the text they describe.
Size: Differentiate important information with different size graphics or text:

Main headings are three times larger than body text.

Clear navigation
Navigation is an integral part of site design, so the Graphic Designer should make sure that page designs show site users “you are here:”

Lighter area of navigation bar shows current section.
Also, links should be chunked on the page. Too many links in one place are confusing, so group them into categories of similar links:

<table>
<thead>
<tr>
<th>Al's Fruit Company Web Site</th>
<th>Bruno's Fruits Web Site</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fruits We Sell</strong></td>
<td><strong>Domestic Varieties</strong></td>
</tr>
<tr>
<td>Apples</td>
<td>Apples</td>
</tr>
<tr>
<td>Bananas</td>
<td>Bananas</td>
</tr>
<tr>
<td>Cherries</td>
<td>Cherries</td>
</tr>
<tr>
<td>Grapes</td>
<td>Grapes</td>
</tr>
<tr>
<td>Oranges</td>
<td>Oranges</td>
</tr>
<tr>
<td>Kiwis</td>
<td>Kiwis</td>
</tr>
<tr>
<td>Kumquats</td>
<td>Kumquats</td>
</tr>
<tr>
<td>Mangos</td>
<td>Mangos</td>
</tr>
</tbody>
</table>

Long lists can be confusing.

Chunked links are easier to grasp.
Prepare content

Gather content

Once the site’s content groups are organized, the Web team gathers the site’s actual content. When it is collected from its various sources—brochures, reports, spreadsheets, CDs, etc—put it into digital format.

Save documents as plain text files, graphics as TIF, EPS, PICT, or other digital formats.

Edit content

The team’s Editor takes the raw text documents gathered and edits them down to approximately half their original length. Use as few words as possible for Web text because:

1. **Reading text on a Web site is harder than reading text in print.**
   Web text is usually read on a low-resolution computer monitor. Scrolling down a page makes it easy to lose one’s place.

2. **People usually don’t want text-rich information from Web sites.**
   Most people visit Web sites to find specific information, so they tend to skim. Lengthy text passages prevent them from doing this.

3. **Succinct text is more easily understood.**
   Salesmen have a saying that “the more words you use, the less they remember.” People who build successful Web sites know the same thing.
A good example is this text from a company’s capability statement…

ACME’s corporate experience has been both diverse and wide-ranging. As a small, responsive organization, ACME has had the opportunity to develop itself in a uniquely different manner than that pursued by most other 8(a) companies. ACME recognizes the importance of the maintenance of a steady cash flow coupled with prompt and consistent payments to vendors, subcontractors, and especially its own employees. ACME meets these financial goals by continually maintaining accessibility to working capital in excess of one million dollars. In addition to sound financial practices, the combination of responsible business management strategies and employees’ extensive technical skills have created for ACME a reputation of quality, reliability, and fiscal integrity unmatched by comparable 8(a) firms.

…that was edited down to this for use on its home page.

ACME
Management and technology consulting on Health and Disability.

Why work with ACME on health and disability projects? We’re a better 8(a).
Construct a working draft

Now create a draft version of the site. Proceed according to the work plan, with the Site Coordinator supervising construction and keeping things on track.

To make the site draft available for review, post it to a test directory. For instance, if the Web address for the “live” site is www.organization.com, the working draft could be posted to www.organization.com/new.

Tip: Employ page templates

Page templates help keep sites consistent. They save work, make adhering to standards easier, and minimize mistakes. All current site-building programs allow the creation of templates, and most automatically update pages created from the template when the template is changed.

Using the design models, create a template for each section of the site. Make the templates available for use by the Web team in building the site draft.

This template can be used to create pages in these four subsections

Editable regions of page content

Page template in Macromedia Dreamweaver
**Tip: Make design and navigation consistent throughout**

Design and navigation should be consistent throughout the site. Sites that preserve consistency in design and navigation make people feel comfortable and in control.

For instance, people naturally assume that if links are red on one page, then links will be red on every page. So, keep the link color the same throughout the site.

Just as people get used to a certain link color, they get used to a certain link order as well. Keep links in the same order on every page.

Different sections, same navigation:
The links in these two sections of a Web site are in the same place, same order, same font, and same color.
Tip: Clarify site navigation

Provide descriptions below or beside links. This clarifies where the link will lead, aiding navigation:

Another way to clarify site navigation is to use verbs as links. For example, a link that reads **Subscribe to our mailing list** is clearer than one that just reads **Mailing List**.
Troubleshoot the site

The look of a site can vary widely when viewed on different computers. To ensure consistency, view the site on a variety of different:

- Platforms (Windows, Mac, Unix)
- Browsers (Internet Explorer, Netscape Navigator)
- Screen resolutions (640x480 pixels, 800x600, 1024x768).

Page viewed on monitor 1024 pixels wide

If the site draft doesn’t look right on some systems, fine-tune it until a consistent look is achieved.

Note: Try to build the site to be handicapped-accessible. Bobby, at www.cast.org/bobby, lists guidelines for site accessibility.
Conduct audience testing

Set up the test

Arrange to have the Audience Test Group test the site. If possible, have them do this at a place outside the office to avoid distractions. Before the test session, interview each member to identify the tasks they want to perform and the information they want to find.

Conduct the test

Have each group member click through the site for 20-40 minutes. As each member of the Audience Test Group attempts to accomplish his or her desired tasks, note if they were successful. If not, note the problems encountered.

Feel free to ask each tester questions such as, “Why did you click there?” and “What’s your reason for going that way?” However, don’t provide any help.

Summarize the results

After the audience testing is finished, compile the findings in a report. Each member of the Web team and the Decision-Maker should review this report. If a pet feature of the site was found to be unpopular or hard-to-use, the audience testing report can supply the proof needed to change it.
Sample Audience Testing Form

<table>
<thead>
<tr>
<th>Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Mail:</td>
</tr>
<tr>
<td>Organization:</td>
</tr>
<tr>
<td>What do you want to do at the site?</td>
</tr>
<tr>
<td>Were you able to do what you wanted?</td>
</tr>
<tr>
<td>What couldn’t you do?</td>
</tr>
<tr>
<td>What do you like about the site?</td>
</tr>
<tr>
<td>What would you change about it?</td>
</tr>
</tbody>
</table>
Post the site live

Revise the site

Now the site is almost ready to be uploaded. Before it is, clarify links and designations that the Test Group found confusing. Using the results of the testing, change the site’s functionality, layout, and navigation to reflect its preferences.

Get final approval

After revising the site, show it to the Decision-Maker and obtain final approval. Get the Decision-Maker to put it in writing.

Upload the site

Upon final approval, publish the finished site “live” at the correct Web address. Click through the site to check links and download times. Correct any last technical problems encountered, and the site is done.
Maintain

1. Establish guidelines for structure and design
2. Set update schedule
3. Specify workflow for site additions
4. Create a site maintenance guide
Establish guidelines for structure and design

No Web site stays the same for long. As a site undergoes changes and additions, it develops inconsistent looks among its sections, accumulates dead-end links, and accrues superfluous information. To avoid this, establish guidelines for structure and design.

Implement design guidelines

Establishing guidelines for site design ensures that updates and additions look consistent with the rest of the site’s pages. Include instructions for:

- How the logo should be displayed
- What colors and fonts should be used
- How navigation and content should be arranged

Include the site blueprint

The site blueprint helps determine where new content should go. When adding new information to the site, look at the site blueprint and figure out into which content group it fits.

![Site blueprint diagram]

- Animals
  - Birds
  - Mammals
- Fish
- New content
  - All About Trout
Set update schedule

Schedule page/section updates

Determine which sections and pages of the site need to be updated. Then determine when each needs to be updated: Daily, weekly, monthly, or every few months.

Work from a local copy of the site

Site updates should be done first on a copy of the site, best kept on an office’s file server. Working from a local copy allows site updates to be tested before they’re posted live, and also provides a current backup of the site in case of Web server failure.
Specify workflow for site additions

When new pages or sections need to be added, workflow procedures should specify who will do the work and how it will be approved. The following workflow system streamlines site additions:

1. **Submit**
   New information to be posted on the Web site is submitted to the Site Coordinator.

2. **Designate**
   The Site Coordinator determines where in the site the new information should go, then delegates the task of posting it to a Site Builder.

3. **Test**
   Site Builders create pages with the new information using appropriate templates. After sending them to the site copy on the office’s file server, the Site Builders test them for link integrity and formatting.

4. **Post**
   The Site Coordinator reviews the changes on the local file server. After approving them, the new pages are posted live to the Web site.

**Tip: Use workflow features**

All current site-building programs contain workflow features that allow permissions and tasks to be controlled and monitored.
Create a site maintenance guide

When the site’s design guidelines and update procedures have been developed, set them down in a site maintenance guide. Having that information in one place helps the Site Builders who update the site keep it consistent.

Sample Site Maintenance Guide

Site Maintenance Guide

Personnel
(Site Builder) updates the site. (Site Coordinator) approves changes to the site before they go live.

Schedule
On the first day of every month the home page is updated. The site as a whole is also reviewed for link integrity and currency at that time.

Site Structure
### Design Guidelines

#### Links

<table>
<thead>
<tr>
<th>Style</th>
<th>Bold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Orange. Hexadecimal #FF3300</td>
</tr>
<tr>
<td>Visited Color</td>
<td>Same</td>
</tr>
</tbody>
</table>

#### Text

<table>
<thead>
<tr>
<th>Body Text</th>
<th>Font: Arial, regular</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>-1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Headlines</th>
<th>Font: Arial, bold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>+1 for second level, +0 for third</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subheads</th>
<th>Font: Arial, bold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>-1</td>
</tr>
</tbody>
</table>

#### Layout

<table>
<thead>
<tr>
<th>Colors</th>
<th>See existing site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphics Size</td>
<td></td>
</tr>
<tr>
<td>Placement</td>
<td></td>
</tr>
<tr>
<td>Navigation Bar Location</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Templates</th>
<th>G:\Site\Templates</th>
</tr>
</thead>
</table>
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site coordinator ................................................................... 13
technician .......................................................................... 14
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