Managing Your Publications

January 3, 1997

Mobil Oil Corporation
Global Information Services

Confidentiality Statement

This publication and all information herein is the property of Mobil Business Resources Corporation (MBRC) or its affiliates. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language in any form by any means for any purpose except for the purpose for which it is expressly furnished without the express written permission of MBRC.

The unit specified in the lower portion of the cover page is responsible for the control, distribution, and maintenance of this document. Approval of this document for a given system is to be recorded in the systems quality assurance plan or other control document.

Table of Contents

Introduction

Any discussion of the quality of technical publications is closely associated with a discussion of the value added by technical publications to an application, a process, or an idea. When publications are carefully planned and well executed by trained professional communicators, they add value. They help users understand and use an application or perform a process more effectively; they communicate ideas and help to transfer knowledge from those who originate it to those who need to use it.

Writing quality technical publications requires sound and efficient management. Following and carefully implementing the publications development life cycle can guide this management process. The publications development life cycle gives you a way of organizing the activities of the publications team, establishing common definitions of those activities, communicating about your activities to others in your organization, and planning your activities so that you can ensure that they are performed well and as scheduled. The five phases of the life cycle include: The Information Plan, The Project Plan, Content Specifications, Implementation, and Publication Production.

A major advantage of the publications development life cycle is its parallelism with standard application development life cycles. Because the life cycle models are parallel, the publications development process may occur at the same time as the application development process. There is no need to wait until the application is nearly complete before the publication planning and development are started. In fact, the publications process can be managed more easily and effectively if it is not delayed. The later the publications life cycle begins in relationship to the application life cycle, the more difficult it will be to plan and produce high-quality publications.

This document is about managing the publications process following the five phases of the publications development life cycle and fitting them into the application development life cycle. Each phase is described in detail and templates are provided to guide you through each step of the publications process.

Information Plan
Project Plan

The Information Plan describes the scope of the publications project, and the Project Plan describes the schedule you will follow and the resources you will need to complete the project.

Note: Many projects will involve the revision of existing documentation. If you are working on a revision of existing material, you may already have considerable data about the audiences for the publications and the tasks they need to perform. Revision projects based on existing data may require less time for the preparation of an Information Plan than new projects.

Creating the Information Plan

The Information Plan documents the basic organization and content of the publications you intend to build. The plan is the end product of your research effort to gather the information about your audience, their tasks, the market, and the application. Much planning is involved. Developing the Information Plan will often take up to 10 percent of the total publications project time.

Information Plans are valuable from at least three viewpoints: They provide direction to the publications team, communicate to others in the organization, and provide a basis for communication among those engaged in other parts of the development activities. The Information Plan should:

- Focus on the early efforts of the publications team and sometimes of the development team

- Provide a repository for data collected during information gathering

- Help the publications team organize its ideas about the design of all publications in the project

- Ensure that the publications team reaches a consensus

- Set the stage for the project plan and the resource estimate

- Ensure that incoming publications team members can come up to speed quickly

- Provide an outlet for the creative activities of the publications team and keep them from writing draft documents too soon

The Information Plan, at minimum, should contain the following sections:

- Goals and objectives of the development project

- Goals and objectives for the publications

- Preliminary user profile

- High-level task analysis

- Design implications and publications strategy

- Preliminary media strategy

Use *Template A* to complete your Information Plan.

Creating the Project Plan

To complete the Project Plan you must designate a team (project manager, writers, editors, graphic artists, and production specialists) to build the required publications for a project and predict how much time and money they will have to do the job. The Project Plan takes the creative ideas of the Information Plan and sets a course for their development.

The Project Plan contains the following:

- An early estimate of the scope and complexity of the project

- An early estimate of the time and budget required to complete the project by the deadline

- An early estimate of the resources required (people, equipment, and tools) to produce the specified level of quality)

- A schedule of milestones

- A description of the roles and responsibilities of the team members, including those who are not members of the publications organization

- A list of the technical and other reviewers and their responsibilities and estimated times for the review activities

- A plan for the final production of the publications, including printing or disk duplication

- A plan for the localization and translation of the publications, if applicable

- A plan for usability and validation testing of the publications

- A plan for ongoing maintenance of the publications

Use **Template B** to complete your Project Plan.

Content Specifications

The Content Specifications are the second planning documents that your team creates during the publications development life cycle. While you created one Information Plan and one Project Plan for the total project, you will create Content Specifications for each document or other media outlined in the Information Plan.

Creating the Content Specifications

The Content Specification documents your detailed analysis of the content you plan to develop and how you intend to organize it. You will produce a Content Specification for each:

- Printed book

- Online help system

- Classroom training program

- Computer-based training course

- Quick-reference tool

To produce the detailed specifications necessary for each project element, you must spend adequate time analyzing the tasks to be supported and organizing the information you have gathered. For many projects, specifying the content of publications should take between 15 and 25 percent of total publications project time. The time spent planning is extremely crucial to the success of the project. The less time you devote to planning, the more likely it is that you and your team members will have to reorganize and rewrite significant portions of the documentation.

Consider that each Content Specification, at minimum, should contain the following pieces of information and analysis:

- Overview of the entire library and the role of the individual publication in the library (goals and objectives)

- Description of the application or process

- Audience profile for the individual publication

- Usability goals of the individual publication

- Objectives of the publication

- Organization of the publication

- Annotated outline of the publication subsections

- Predicted page/screen and graphic counts (or other scope metrics)

Use *Template D* to complete your Content Specifications

Revising the Project Plan

After all Content Specifications are complete, you have the opportunity to review and revise the Project Plan. When Template D is filled out and all research on the application, audience, environment, and tasks is complete, you have completed the Content Specifications.

Assisted by the publications team and the editor, you will need to decide whether the Content Specifications are sufficiently developed to be presented for consideration by external reviewers. If a third of the project time has been expended with little concrete information available about the application, you may want to suggest that staffing be reviewed until more information is forthcoming. By this time, it may be clear that the total project time will inevitably be extended.

However, if the Content Specifications appear reasonably complete and user tasks are well understood (although their technical implementation in the application has not entirely been worked out), you are ready to analyze the specifications and revise your project plan.

Reviewing the Content Specifications Estimates

Once the page and graphic estimates are in place, you should be able to determine if the estimates outlined in the Content Specifications are in line with the realities of the application and project or if a new estimate is needed.

In reviewing the Project Plan in light of the Content Specifications, you face at least three possibilities.

- The Content Specification is virtually identical to the size predictions made in the Information Plan, and no change to the Project Plan is needed.

- The Content Specification suggests that the size predictions in the Information Plan were too high, and the resources or schedule determined for the project should be cut back.

- The Content Specification suggests that the size predictions in the Information Plan were too low, and the resources, quality level, and schedule determined for the project should be increased.

Note: Review the page-count estimates to ensure their compliance with the information design begun in the Information Plan. It is highly likely that increases will occur between the Information Plan and Content Specifications phases due to a more thorough understanding of the application and the requirements of the audience and task.

Estimating Revision Projects

Many revision projects begin with Content Specifications, rather than with an Information Plan. Often a valid plan exists from earlier versions of the project, although it should be periodically re-evaluated. If the original Information Plan continues to be useful, then revision projects are more likely to begin with the Content Specification phase.

Two possibilities exist for handling Content Specifications for revision projects: Revise existing ones, or build new ones. The simplest route is to revise the existing Content Specification by indicating what changes will occur for the new version of the publication. You may have to add new sections, delete old sections, and make major and minor changes to some or most of the original publication to account for application or process changes. The second possibility occurs when either there was no Content Specification for the previous version or the old version of the publication needs to be redesigned from scratch. In this case, the writers should treat the Content Specification as a totally new project but indicate what might be preserved from the older version. If there is not a Content Specification at all, ask the writers to create brief ones from the existing

publication with the changes indicated. In that way, you will have a complete set of Content Specification for future reference.

The most difficult job in specifying a revision project is estimating the impact changes in the application or process will have on the publication. You must investigate the changes to the existing publication and estimate the cost of the changes. You can use a procedure called the Changed Item Matrix. It works as follows:

1. Make a list of the engineering changes in the application or process.

2. Calculate the number of pages to be added as a result of each change.

3. Calculate the number of major changes to existing pages as a result of each change.

4. Calculate the copyediting changes required for all existing pages.

Use the following table to record the changes:

Engineering Change	Original Pages	New Pages	Major Changes	Minor Changes	Copyediting Changes
EC1	0	20	0	0	0
EC2	75	5	40	20	15
EC3	50	0	0	45	5
EC4	60	25	30	10	0
Total Pages	185	50	70	75	20
Hours/page		5	4.5	3.2	.2
Total hours		250	315	240	4

A major change is defined as a change that affects more than half of a page; a minor change is defined as a change that affects less than half of a page. A copyediting change affects a word or a phrase at the sentence level and may include spelling correction, punctuation, or grammar error that remain in the previous version of the publication.

To calculate the number of pages affected by each engineering change, you should visit with the developers, the marketing people and any other people responsible for defining the requirements for the new application or process.

Revising Resource Requirements and Schedules

In revising your resource requirements and schedule for a new project, first consider the relationship between the data produced for the Content Specification and your original Information Plan. If the Content Specification accurately

suggests a smaller publication set for the project, you will need to revise your resource requirements downward and adjust your schedule. You may be able to shorten the deliverables schedule if the rest of the project schedule permits or you may be able to stretch the project schedule by reducing the resources devoted to it during the development phase. Stretching the schedule occurs when you do not want the publications life cycle to get too far ahead of the application life cycle. Use the following project equations to assess project scope:

Project Equations

Equation 1   If schedule is constant, then increase the resources.
Equation 2   If resources are constant, then expand the schedule.
Equation 3   If resources and schedule are both constant, either reduce the size of the project or reduce the level of quality.
Equation 4   If the level of quality is constant, increase the schedule and resources or reduce the size.
Equation 5   If the increased size is necessary and quality is constant, increase the schedule and the resources.

Leveling Resources

As the project moves into Implementation, you must consider the staffing mix once again. You may have assigned a team member to prepare the Content Specifications for each publication or even several publications. Now, in light of the new page-count estimates, you need to look at the staffing levels for the rest of the project.

You may find that you will be able to use a matrix organization to increase the flexibility of your team members and add less experienced members as assistants. In a matrix organization, team members may take on individual pieces of the publications library, or they may take on roles that span across the library. It might be useful to have a single writer handle user, reference, and online documentation for the same part of the application, rather than handling only the user documentation.

Note: Find the best staffing level as early as possible to maintain progress and efficiency on your project.

Scheduling Implementation

Once the Content Specification is well established and you have revised the Project Plan to account for changes, you are prepared to schedule the Implementation of the project. As the detailed schedule emerges, you may want to create a schedule diagram that shows all the pieces in place.

Note: Microsoft's *Project Manager* is useful for illustrating the schedule and tracking the project milestones.

Creating a Tracking System

After the Content Specification is complete, and you have evaluated the effect of the new project information on your original Information and Project Plans, your next step is to create a new project estimation spreadsheet. In addition, you should institute weekly time sheets, weekly progress reports, and weekly tracking spreadsheets. From the data gathered and assessed weekly, you next produce a monthly or periodic progress report for your project as a whole.

Creating a Project Reporting Spreadsheet

Begin tracking the hours used by the team members as soon as you have an initial rough-order-of-magnitude spreadsheet for the Information and Project plans. You can easily use the original estimation spreadsheet to create a project reporting spreadsheet for the project. Simply add columns to the spreadsheet in between the estimated hours column to record the actual hours expended by each person. At the end of each week, collect everyone's time sheets and transfer the data to your project reporting spreadsheet.

Use *Template E* as your Project Reporting Spreadsheet.

Instituting Weekly Staff Progress Reports and Time Sheets

Have each member of the writing team report all time spent on the project including the time spent:

- Gathering Information

- Interviewing

- Learning the Application

- Organizing

- Composing

- Formatting

- Editing

- Revising

- Illustrating

- Printing, and more

Use *Template F* as your Progress Report/Time Sheet

Writing Weekly Progress Reports

Weekly time sheets and progress reports enable you to regularly assess what percent of a project is complete. Each week, enough information should be summarized in the various reports to give you a good idea of the health of your project. If you compare the weekly information with the original plans, you should be able to tell if you are behind schedule, on schedule, or ahead of schedule. Prepare a weekly progress report. Send this report to all members of the project and publications teams. The reports let everyone know the status of the project and alert them to problems that require joint resolution.

Use *Template G* as your Weekly Progress Report

Creating Project Standards

Mobil has created three documents related to project standards. The first, *Documentation Style Guide*, outlines the standards for written documentation. The second, *Online Documentation Style Guide*, outlines the standards for online documentation and the last document, *Managing Your Publications*, provides guidelines and information to help you manage the entire publication process.

The standards include such items as:

- Use of the company logo and other identifiers

- Design of the title pages and other packaging

- Page design for hardcopy publications

- Screen design for softcopy and online documentation

- Use of acronyms and abbreviations

- Correct use of grammar and suggested writing style

In addition, you should be prepared to develop and maintain a project-specific style guide to record the decisions you will make during the course of the project. Some of the items to include in a project-specific style guide are:

- Spelling of project-specific terms

- Abbreviations and acronyms for the project

- Rules of capitalization and other highlighting techniques specific to the project

- Styles for numbered and unnumbered lists

- Styles for step-by-step procedures

- Styles for code samples

- Writing conventions for prefaces, overviews, introductions, notes, and other special sections

- Other issues specific to the project and not addressed in the organization's style guide

In addition to special standards for the writing of text, you may want to include special standards for the design of graphics. You may want to specify line weight, font for labels, arrangement of colors on illustrations, style of art for specific uses, and other items not covered in the standard style.

The three style guides mentioned can be found at:

I:\\DAL-S1A\data\share\everyone\gis_doc\template\word\style.doc
I:\\DAL-S1A\data\share\everyone\gis_doc\template\frame\docstand.bk
I:\\DAL-S1A\data\share\everyone\gis_doc\template\word\manage.doc

Creating an Information Control Plan

With several people writing on a publication project, or even with a single individual, you need to establish a plan for controlling the in-progress publications. It is extraordinarily easy for disasters to occur if plans are not carefully made in advance. Perhaps the most common disaster occurs when a writer has more than one copy of a document and makes changes to an old copy rather than to the most recent copy.

To avoid disaster, consider the following actions:

- Develop a naming convention for all project files so they can be located easily by everyone on the team.

- Use plain English naming conventions if at all possible.

- Avoid using chapter numbers in the file names in case you need to rearrange chapters.

- If you have to use cryptic names, plan to include a text file that lists all the names in English and their corresponding cryptic names.

Note: Remember to track all graphics files as well.

Conducting the Content-Specification Reviews

If the development team understands how you plan to organize the publication and agrees that you have included all the necessary user tasks and data, then you are unlikely to make major structural changes to the publications later in the development process. In the same way, if the development team fails to understand the organization plans laid out in the Content Specifications, you are likely to face continuing arguments about organization and content.

Managing the Content Review Process

To manage the review process, especially the first time that anyone among the reviewers sees the full Content Specifications, you need to educate the reviewers about their responsibility. Complete Content Specifications may seem daunting to reviewers. They will need preparation and direction. To stage the review process:

- Invite all those responsible for supporting the development of information for the publication

- Prepare a presentation of the organizational strategy for the publication

- Clarify the relationship between the strategy and the particular Implementation

- Emphasize changes that have been made in the overall strategy from the time the Information Plan was created

- Emphasize all changes that will affect the resources and schedule required to complete the Implementation

The most significant agreements to reach during the Content-Specification review are those that affect the resources and schedule for the remaining phases of the project. If the Content Specification suggests that the publications are larger in scope and more difficult to produce than first estimated, that fact must be clearly explained and considered. If key members of the development team are not prepared to support the changes in resources and schedule, then the publications team must be prepared to recommend reductions in scope so that the original schedule can be met with the existing resources.

Creating the Project Management Notebook

Once the Information Plan and Project Plan reviews are complete, add the Content Specifications in their final form to a Project Management Notebook. Also include any relevant minutes from the review meetings, including discussions and decisions on major points of disagreement. You may also want to file the marked-up copies of the Content Specifications to ensure that you have documented all points of view even though some did not apply or could not be considered.

Implementation

Implementation of the publications development life cycle begins as soon as the content specifications have been revised and approved for Implementation. As you begin to implement your document, you may be faced with issues you have not handled before. Naturally these issues surface when there is little time left in the schedule for changes. The best you can do is plan as thoroughly and carefully as possible.

Managing Implementation Activities

When Implementation begins, about 35 percent of the total project hours have been expended. Another 55 or 60 percent of total project hours will be devoted to Implementation. By the time you are ready to compile your online help or send your camera-ready copy to the printer, only 10 to 15 percent of the project time will remain. It is very important to establish Implementation milestones and carefully track your progress.

Establishing Implementation Milestones

The four stages of Implementation are:

Interim and prototype drafts
Interim drafts represent the informal cycle of writing, developmental editing, and reviewing that occurs throughout Implementation. See page 19 for more details. A prototype draft presents a new strategy for a publication that can be tested early in the development life cycle.

First draft	The first draft represents the culmination of all the interim draft milestones into the first formal milestone of Implementation. See page 19 for more details.
Second draft	This draft is often associated with the beta release of an application. This draft will include all information missing from the first draft, in addition to all changes, insertions, and deletions of text and graphics produced in the first draft.
Camera-ready copy	The copy that will be put into production. The camera-ready draft is usually signed off as a last step before it is turned over for reproduction, assembly and distribution.

Note: You should schedule usability assessments at frequent intervals during Implementation.

Scheduling Implementation Milestones

You need to schedule carefully each of the Implementation stages following the approval of the Content Specifications. Your first step is to schedule the major milestones for first draft, second draft, and camera-ready copy. Then, you can schedule the interim drafts and a possible prototype draft in preparation for the first draft.

You should be able to complete a first draft after you have expended approximately 60 percent of your total project hours. Once you have scheduled your first draft milestone, schedule interim milestones together with the writing and editing team members. The realities of the application development process will dictate which subsections of publications can be completed in a particular order.

Note: Work backward and forward between the finalized Content Specification and the date that the camera-ready copy is due to be released for production in order to schedule the major milestones for Implementation.

Managing Implementation Milestone Reviews

All the major phase reviews following first, second, and camera-ready drafts should be managed. The first step in managing the review process is to schedule

the reviews and publicize the schedule. When a draft copy is ready to send out, include a cover memo that explains what the reviewers are supposed to do and reiterates the review schedule.

Use *Template H* as your cover memo.

Adding to the Project Management Notebook

As you develop your project implementation schedule, include the schedule information in your Project Management Notebook. You may want to include a calendar of milestone dates, as well as Gantt charts or other chart types that may be useful when conveying information to members of the development team. As usual, include meeting minutes, your telephone log of project discussions, electronic mail records, and other documents that show how the project is progressing.

Tracking Progress

You have created templates for weekly time sheets and progress reports for all your team members. You established a method of recording weekly data in a reporting spreadsheet and put in place a system for producing periodic reports. During Implementation, you should be ready to put the tracking system into full use. While working on the Information Plan and Content Specification, you may have found it reasonably straightforward to keep track of progress. The entire team, or a smaller planning team, is completely directed toward a common goal - gathering sufficient information about the project that will result in comprehensive and detailed plans for the publications library.

During Implementation, the unity established during the planning phases becomes more difficult to maintain because the team members have their individual assignments for separate publications or even parts of a single publication. Consequently, the tracking process during Implementation becomes much more complex and time consuming than it was during the planning phases.

Producing Interim Drafts

Activity begins with data gathering by the writer. The writer produces initial text and ideas for art subsections of the publication. The resulting interim draft is first reviewed internally by the developmental editor for adherence to standards, conformance with the Content Specifications, and other substantive issues. Before the interim draft is released for an interim and informal technical review, basic copyediting occurs to eliminate the worst copy errors.

At the same time that the writer is composing the interim drafts of the subsections, those responsible for the physical format of the document are preparing project specific format guidelines and an electronic style template specific to the publication.

When ready, give the interim draft to the single individual or very small group responsible for an initial technical review. Usually this interim review is not part of the formal review process; rather, it is an attempt to ensure that everyone on the team is on the same track. The interim reviews should remain informal. They are really a part of the data gathering process between the writer and the subject matter experts.

Turning Interim Drafts into a Complete First Draft

The activities involved in producing myriad interim drafts eventually add up to a complete first draft as defined by the milestones defined in the Information Plan and detailed in the Content Specifications. As a rule of thumb, the first draft represents approximately 60 percent of the total project time.

Note: Ensure that you make regular progress toward the first draft milestone.

Tracking Interim Project Milestones and Progress

As the Implementation activities proceed through Implementation, the processes you have put into place will allow you to track progress. You should receive weekly time sheets and progress reports from each team member. Review the accomplishments carefully.

Track interim progress carefully, ensuring that time used for extraneous activities does not interfere with your potential for meeting your schedule obligations.

Reporting Project Progress

As the interim drafts continue to be produced during the early stages of Implementation, your job is to track whether or not progress is being made and the schedule is under control. Your information comes from your own assessment and the weekly reports of your team members. The data from the weekly time sheets is transferred to the weekly reporting spreadsheet, where you can compare actual hours expended with estimated hours. The qualitative assessments of progress, including the percent complete, become part of your regular project progress reports.

Use *Template G* as your Weekly Progress Report.

Managing Change

You must carefully report all changes that affect the budget, schedule, and resource allocations in your periodic progress reports.

Note: Microsoft's *Project Manager* is useful for illustrating the schedule and tracking the project milestones.

Analyzing the Effects of Small Slips

Maintain a steady pace of work, in line with the detailed interim schedule created, to avoid schedule catastrophes at the end of the project.

Controlling Change

In an organization that is dedicated to controlling change, all changes to requirements and specifications are handled in an orderly manner. Each proposed change is recorded by some formal mechanism and all affected parties are asked to respond to the proposal.

The intent of a managed change process is to ensure that the full impact of any proposed change is well understood throughout the organization, and all players agree to assume responsibility for accommodating the change. A managed change process is based on the assumption that all changes, including small and seemingly insignificant changes, may affect the design of an application or process in fundamental ways. The purpose of managed change is to preserve the integrity of the original design and to ensure that changes are reflected in all development documentation, including user publications.

Respond to formal engineering change requests by assessing the impact of the change on the publications.

Instituting Change Control Procedures

Whenever anyone asks you to make a change that is outside the normal review process, you must complete a Publications Change Request form.

Use *Template I* as your Publications Change Request form.

Managing Changes to the Publications Project

The process of monitoring changes that occur during the course of a publications project constitutes only half of your responsibility for managing change. Once you are aware of a change, either through your network, informal reports from your team members, or through a formal change process, you must next evaluate the impact of the change on the publications project.

To evaluate the cost of an addition, you must take into account two significant factors:

- The change to the size of the original publication

- Possible changes in the project dependencies

Calculating the Effect of an Increase in Publication Size

Many changes that occur to applications or processes you are documenting result in additions to the publication. Changes to software or hardware, additional detail in a process, and more thorough explanations or examples tend to increase the size of the technical publication. The following steps point to the issues you must consider in evaluating the effect of increases:

- Compare the new size of the publication with the original size.
  Review the original hours per page estimate. If you find that the hours per page has increased, evaluate why the increase has occurred. Re-evaluate the project dependencies and recalculate the hours per page.

- Use either the original (if it is still accurate) or the new hours per page to calculate the number of hours needed to handle the additional pages.

- Take into account those phases of the project already completed.

- Evaluate the effect of the additional hours on schedule and resources.

Developing Prototypes

By designing and testing early documentation prototypes, you can better meet the needs of your customers. Prototyping sets the stage for shipping the second version of the design to customers, rather than the first.

Prototypes are working models, like those that architects have long used to help clients understand more thoroughly what a building will look and feel like.

Prototypes occupy a place in the development life cycle between the planning stages and the full Implementation. They permit us to move from our design ideas, which stem from the original user and task analyses, to early testable models. Prototyping is one reason that technical communicators must be involved at the earliest stages of application development, so that we can develop models of proposed publications just as engineers and programmers produce models of proposed hardware and software.

Using the Content Specification as an Early Prototype

The first available prototype, strictly speaking, is the Content Specification. One of the reasons you should spend considerable time developing and reviewing the Content Specifications is that they represent an early prototype of how a document will be organized.

Not only do detailed Content Specifications invite a detailed design walkthrough, they can also be tested for completeness, organization, and language. You can ask users to look up information pertaining to a specific task and discover if they can find the information in the table of contents. If they cannot, you may decide to revise the organization of the text or the names of sections so that they are more meaningful.

The problem with using the Content Specifications as a prototype is obvious. However, most reviewers have difficulty responding to a paper-and-pencil design. We know it is difficult for people to imagine how the end product will look and feel when they are looking at a paper-and-pencil design. Consequently, reviewers can review and agree to Content Specifications and yet dislike the final result. A more complete and fully conceived prototype section or sections of a publication will fill a gap in the process between design and development. It will also allow us to introduce early usability assessment.

Developing a Complete Prototype

Most prototyping efforts come after an initial detailed design has been suggested and work has begun on a section of the publication. In a prototyping model for publications development, the section of the publication chosen for initial development becomes the trial case for the design ideas being worked out.

The prototyping process includes:

- Selecting a sample selection or sections to design

- Gathering as much information as possible

- Fully implementing the design in terms of both organization and layout

- Testing the design with representative users

- Evolving the design through subsequent tests to ensure its usefulness

- Throwing out the first design and starting over

Recognize that early prototyping can save time in the development life cycle by reducing the need for costly last-cycle design changes.

Selecting a Project for Prototyping

Not every project is a candidate for prototyping. The best candidates are those projects where you are contemplating a major design change to increase customer satisfaction, reduce publications volume, or deliver more information electronically. The worst candidates to prototype are those where there is little likelihood that design changes will be accepted or where you are simply maintaining an existing design.

To plan for a prototype, you must first consider carefully which sections planned for the publication are the best candidates for prototyping. Good candidates for prototyping have the following characteristics:

- Representative of the larger publication

- Large enough to be tested in a performance context

- Sufficient product information available to complete the text and graphics

- Representative of as many design elements as possible, from numbered and unnumbered lists through heading levels, types of illustrations, tables and charts

Involving Your Team Members when developing the Prototype

Prototyping should not be seen as an individual effort. A number of members of your team should be invited to participate in the planning and development. The writer and the developmental editor have primary responsibility for defining the new structure of the information and a variety of access points for the user. The writer and editor also work together in developing the writing style, including the most appropriate tone, the completeness of explanation, and the use of instructional procedures versus conceptual information. The graphic designer is responsible for creating the page design with appropriate feedback from team members. The page design should fully represent the look of the final publication.

All the elements of design must be considered if the prototype is to be a complete representation of your new design ideas. Because application information is an integral part of the prototype publication, you should gather the most complete and accurate information possible. In the absence of screens or actual hardware controls, the graphic artist may want to mock up examples that will look like the screens and controls.

Establishing the Details of the Format

A complete design of the format of the publication, including page design and screen design, should be part of the prototyping process.

Establishing the Details of the Writing Style

The details of the writing style also need to be established for the prototype sections. That means you will have to ensure that style decisions involving writers and editors are made earlier than they might ordinarily be made in the project. A consistent style needs to be established and maintained for headings, introductions, lists, tables, step-by-step instructions, descriptions, and more consistent terminology and consistent emphasis techniques (boldface, italics, size) must be used.

Establishing the Details of the Graphic Style

The final decision that you need to make for the prototype is the graphic style. The graphic style includes the presentation of photography and line drawings in paper documentation and the presentation of line drawings, video, sound, photography, and animation in electronic documentation.

Conducting Usability Testing

One reason to develop prototype drafts is to ensure that the internal reviewers have an early opportunity to see exactly what the publications will look like and how they are intended to be used. A more significant reason is to test the prototype drafts with actual users by using a variety of techniques for assessing usability.

At the earliest design stages, paper-and-pencil tests of various sorts are possible to evaluate such issues as:

- The most appropriate and understandable terminology

- The design of the table of contents

- The distribution of topics and tasks within a library of documents

- Document size and configuration

- Readability of certain type fonts

- Clarity of icons and other symbols

As soon as prototype sections of publications are available, tests can be planned and implemented. You can conduct tests of such items as:

- Step-by-step instructions

- Introductory text

- Conceptual information

- Reference topics

- Preliminary indexes

- Tables and diagrams

- The combination of illustration and text

Finally, once the product and publications are released or shortly before release, performance based tests can help you evaluate the success of the information in meeting the users' needs. If the tests are performed early enough, you may find that you can revise areas of the text that cause severe problems. If not, you can plan a new approach for the next release of the information.

Anticipating Changes in the Development Life Cycle

Software and hardware development projects, as well as other highly technical publications projects, all experience a considerable degree of change during the development process. Rework on the part of the development team inevitably leads to rework on the part of the publications team.

Anticipating the Amount of Rework

Calculate a rework curve by comparing the actual percent complete of your projects with beliefs about the percent complete. Use the rework curve to anticipate the amount of change that will occur in your current project.

Managing the Production of Publications

Once the second or third (or more) developmental draft has been approved by the review teams and only minor rework is left to perform on the drafts, you are ready to consider production activities of the publication. A number of activities occur during this phase of the project that require careful management if they are to proceed correctly and remain on schedule. Because many of the activities have to occur in sequence rather than in parallel, the path you must follow to complete the project becomes critical. Each activity must be carefully defined so that little rework is necessary.

Managing the Production and Review of the Camera-Ready Draft

Traditionally, the final draft of a publications life cycle has been known as the camera-ready draft. The term *camera-ready* refers to the process prior to printing when the type and graphics were originally pasted up in what is referred to as a *mechanical.* Today, most paste-up has been eliminated because we now produce both text and graphics electronically.

Despite all the innovations in the publishing process and the automation of pre-press activities, much of the traditional production work is still done within the publications organization by members of the writing staff. To manage a publications project, you must understand the production activities so you can plan for their smooth execution..

Selecting the Best Reproduction Method for Your Needs

Your selection of the best way to reproduce your publications in hardcopy depends on a number of factors:

- Total cost of the printing method used

- Quality of the output required

- Quality of the input required

- Turnaround time

- Client expectations

For nonprint media, you need to understand the decision and price points involved, as well as the reproductivity of the original decisions you made about the print documents. You may need to have CD-ROM disks created, which involves burning a master disk and making copies from it.

For both hardcopy and nonprint media, it is worthwhile to spend time learning about the processes so that you can make informed choices. To understand the relative costs and decision points, interview several vendors. Ask for a range of costs, depending upon the quality, size, and quantities needed. Use the information you collect to assist your decision making process.

Selecting the Best Binding and Packaging System for Your Needs

A number of choices are also available for binding hardcopy publications and for packaging a library of media to be shipped with an application. A number of factors will influence your choice:

- Size of the publication (page size and number of pages)

- Environment where the publication will be used

- Maintenance planned for the publication

- Company standards

Among the binding choices available you will find:

- Loose-leaf in vinyl or paper-board three-ring or multi-ring binders

- Plastic comb

- Wire-O

- Perfect

- Saddle Stitch

Whatever binding method you select, be certain that you understand the tradeoffs in cost, quality, and usability and that your choice best meets your users' needs.

Finding the Best Vendors

Once you know something about the printing and binding methods you want to use, you are ready to select vendors. In many cases, a single vendor can handle the entire process, but you may also discover cost savings in finding specialists.

The best way to find good vendors is to use your network. Find out which vendors your local colleagues use, especially people producing similar types of publications. Referrals are a good place to start.

Get to know your vendors and how they intend to meet your needs.

Estimating the Cost of Printing

You may assume that the simplest method of estimating costs is to ask for estimates from your vendors. Certainly, they will eventually need to estimate the jobs themselves. But, it is worthwhile understanding how the estimating process works so that you can better evaluate the bids.

For photocopying, the costs are relatively simple to estimate. The base cost is a per-impression price with a minimal amount subtracted for duplex printing. There may be a small setup cost, which means the cost per impression will go down as the number of impressions increases. The paper cost is a small part of the overall per-impression cost, so the fact that you are using half the paper does not reduce the overall cost by much, if any. If you photocopy a sheet larger than 8 X 11, you will have to pay for special handling, unless your vendor handles a lot of work of this sort. If you photocopy a smaller page, you will also be charged for special handling and trimming costs. If you ask for special paper, especially paper that has a coating, you will be charged a higher per-page rate. Sometimes a cooperative vendor will let you supply your own paper and will reduce the per-page cost accordingly.

Offset printing is much more difficult to estimate, especially if you need multiple colors, have a great deal of photography in the publication, or have special effects

such as bleed tabs which increase paper and trimming costs. The cost of offset printing is also greatly influenced by the type of paper you select.

The estimate for offset printing should include the costs for:

- Preparing the press

- Setting up the job (mechanicals, plate making, etc.)

- Paper and ink

- Cutting and folding the final sheets so that they are ready for binding

To prepare the press is a one-time cost that is the same for every job that uses the same press. The more elaborate the press, the higher this cost. The setup costs depend upon the number of pages in the camera-ready copy and the amount of work that needs to be done to put graphics in place.

Because of the high initial cost of preparing the press and setting up the job, increasing the number of copies printed does not proportionally increase the cost of the job. In fact, the more copies you make, the lower the cost per copy.

Work with your printing vendors to estimate costs and identify price points for publications, but understand how costs are calculated.

Scheduling the Printing and Binding

Printing, of course, cannot begin until your camera-ready copy is ready. However, it is wise to be aware of the problems that may occur if you are unable to meet your originally scheduled printing dates. Your printing vendor most likely has a large number of jobs to schedule carefully to make the most efficient use of staff and equipment. Your job, like all others, will be scheduled for a particular time on press. If you miss your deadline with the printer, you may not be able to get the original turnaround time on the job that you had been promised. To avoid such delays, keep your printer vendor informed about the progress of the project.

Although printing and binding have to take place at the end of the publication development life cycle, you can make decisions about the packaging of the publication early in the life cycle. After you decide on the packaging, contact your vendors and find out exactly what lead time is needed.

Monitoring the Production Process

Production represents a series of parallel and sequential activities that all must be completed on time. If everything is going to happen in the right sequence, you need a clear understanding of all the details of the process. You also need to monitor the production process so that it goes well, everything is done on time, and costs are kept under control.

Planning for Final Technical Sign-Offs

Select one or two members of the development team to sign-off on the document after all changes have been made to the final draft including the index, table of contents, artwork, front matter, and back matter. The project manager for application development should be happy with the final look of the documents. Ensure that everyone understands the cost/benefit tradeoffs that must be considered with late changes.

Preparing Collating Instructions for the Printer

Create collating instructions to avoid problems in the construction of books after the pages have been printed. Give the printer a copy of the document exactly as you want it to be printed. For example, if the document is to be printed double-sided and placed in a three-ring binder, do just that for your mock up.

Reviewing Bluelines

During the process of preparing a publication for printing, printers are able to produce interim representations called bluelines you can use to check the accuracy of the job. Take advantage of this opportunity and review the bluelines carefully.

Doing Press Checks

Be prepared to check the first copies off the press on important jobs that use significant amounts of color.

Spot-Checking Delivered Copies

Check the delivered copies of a publication for mistakes that need to be corrected. Some of the items that you may want to check are:

- Pages printed at an angle

- Faded color on all or some of the signatures

- Smudged pages that were not adequately dried

- Out-of-focus duotone or four-color images

- Color that is not exactly in line with the black text

- Pages out of order

- Bad trims (the margins, especially the outside margins, are not what you intended)

- Bindings that are already coming apart (perfect bound only)

- Holes misdrilled for three-ring binders

Template A
Information Plan

This template provides you with the information needed to produce a complete Information Plan for a writing project. All the headings here are actual headings you will use to compose your own report.

The file for this template is:
I:\\DAL-S1A\data\share\everyone\gis_doc\template\word\info_pln.doc

Begin your Information Plan by providing the following information:

- Client company or project:

- Project manager:

- Additional project contacts:

- Tentative start date:

Include review notes in your introduction to the Information Plan. Information Plans, like other deliverables, are usually delivered in first draft form, reviewed by the involved parties, and submitted for second-draft review and sign-off. Refer to the following guidelines to include appropriate notes and other information at both draft stages.

First draft - Your first draft of the project Information Plan explains the documentation strategy that the project team plans to support. Include a note with the first draft indicating a date and time when comments must be returned to the project manager.

Final draft - Once all the client reviewers agree on the strategies outlined in the Information Plan, incorporate any remaining changes, and remove the date and time note included on the first draft. In its place, include a sign-off approval for the plan, which should be signed by the project manager and the client representative as follows:

Please sign below to indicate approval of the Information Plan.

_____   _____
Approver's Signature (Client)   Date

_____   _____
Title of Approver (Client)   Date

_____   _____

Approver's Signature (Project Team)   Date

_____   _____

Title of Approver (Project Team)   Date

Also add a note indicating that readers should contact the project manager if they have any questions.

Purpose of this Project

In this section, explain the purpose of the technical project. Provide some background explaining the client's motivation for the application and its documentation. For example, is the documentation needed because they have introduced new functionality to a software application? In this section, it is appropriate to include information about the client's rollout strategies for the application. Explain this application's niche.

Purpose of the Documentation

In this section, include information about the needs that the documentation addresses. For example, is it supposed to supplement a training effort, or is it a stand-alone document set meant to be a user's sole information resource?

Usability Goals for the Documentation

In this section, describe the usability goals you have established for the documentation. How will you ensure that users will be successful in using the documentation to learn and use the application? For example, have you established the amount of time users should allow for performing particular tasks? Can you ensure that users are able to perform the tasks within the allotted time with as few errors or calls for help as possible?

Application Description

In this section, include a brief description of the application and its basic functions. This information should be brief, since more detailed information about the application functionality is included in the Content Specification for the individual deliverables.

Audience Profile

Describe the background and experience of the audience(s) for the documentation. What are their expectations about the application? In what kind of environment do they work? Are there any special circumstances surrounding their use of the application?

Include a brief description of the individual audiences. In this description, include only information that will have an impact on the final design and organization of the documentation for these users. For example, if one audience contains people with very similar educational backgrounds, this fact may be less important to the documentation project than the fact that some have no MicroSoft Windows experience and will be expected to use Windows.

Indicate how you gathered the audience information. For example, if you interviewed actual users, indicate as much. If there are no actual users and you must rely on another group's perception about the audience, indicate this as well.

Task Description

Identify all the essential tasks required to accomplish a meaningful outcome using this application. Correlate this list according to the audiences identified in the previous section. For example, you might indicate that an audience of help desk personnel will use the documentation to answer the most frequently asked questions regarding the application. Provide only basic task information at this point, since detailed information about tasks is included in the Content Specifications for the individual deliverable.

User/Task Matrix

Draw a user/task matrix to illustrate the information you have gathered about audience and tasks. In each box, indicate how likely it is that the audience subgroup will perform the high-level task. Use a scale of 1 to 10, with 1 least likely and 10 most likely.

Users				
Tasks	*Customer Engineers*	*Experienced Technicians*	*Novice Technicians*	*Field Workers*
Installation	10	8	2	1
Operations	2	4	4	10
Diagnostics	10	9	5	0
Maintenance	8	10	10	0

Design Implications

Discuss the ways in which the audience and task analyses influence the design of the documents.

For example, if you are designing one book for an audience of programmers, you may decide that flowcharts would be useful graphics to include. However, you might want to avoid flowcharts in another book designed for end users who may be put off by the highly technical look of a flowchart. Your task analysis also comes into play as you compose this section. For example, help desk personnel will not want to have a manual that documents each of the systems that they have to support. You will probably want to plan for online documentation.

The detailed design implications address concerns at two levels: What is the proper information to include in individual volumes and how should information be presented within those volumes? Is there a need for reference manuals, task-oriented user's guides, or quick-reference cards? Are some of the concepts so esoteric that some users will need a purely conceptual piece? Should one manual contain a combination of one or more of the aforementioned types?

At this point, it is important to identify how the documents in the set will work together. Does the library address all the audience and task needs identified in your analyses?

How will the information be provided: Hardcopy? Online? Your design implication will help you select the right media for your deliverables, as discussed in "Media Section" on the next page.

Documentation Strategies and Concerns

In this section, explain your usability research and testing strategy. Do you intend to test the product to assess its usability? Will this be a formal process? Will you use reader comment forms to solicit responses after the documentation is in the field? Do you intend to question beta users about the documentation's usability so that you can implement changes before the documentation is distributed to a larger audience?

Explain how the revision process, if any, affects the project. Will the documents need revision? How frequently? How do the information design strategies outlined in the Information Plan accommodate the revision schedule and make the set easy to maintain?

Describe any production concerns that could potentially have an impact on the project (lengthy lead times to accommodate a printing schedule, typesetting, etc.).

Indicate how the Information Plan complements any training development taking place. You should include information about how the documentation will be used to support a training effort, or vice versa, since together training and documentation form a complete learning product.

Describe the document distribution plans. Indicate how all materials will reach the users. For example, will online documentation be distributed via Mobil's Intranet?

Media Selection

Describe what media will be used to deliver the documentation. The design implications point to a delivery strategy for the documentation that you will produce. Keep in mind that some of your documentation may be delivered online. Indicate what information is to be moved online and its general format. Will some of the online material consist of help text or complete reference material? You might want to indicate whether demo disks will be a part of the package, so that you can plan on getting the support needed to produce these. Indicate in your Information Plan what is most appropriate to your project and provide production details for the products, including information about the page sizes and binding for the documents.

Typical learning products include the following:

- Quick-start guide

- Task reference

- Dictionary reference

- Concept guide

- Installation guide

- Quick reference cards

Along with each of the learning products included in the plan, address any production issues affecting the documentation. Will any manuals be in color? Will they be photocopied? You may want to include even more detailed information about the printing if it affects your plans for the project.

Indicate what format and tools will be used to implement the design. In addition to the text processing tools used, what other graphics packages, editors, or other software will be used to complete the project?

Indicate how the manuals will be packaged. For paper documentation, describe the binding method. Include specifications for tabs and other special features that

must be ordered in advanced. For nonpaper documentation, describe the appropriate packaging methods.

Constraints

Describe some of the anticipated problems or limiting factors on the project. If you work on several projects, you might want to rate the dependencies that typically affect progress on your projects.

Client Project Team

List the pivotal contributors on the client's team by title and name in order to formally record who has pledged to support the project on the client's end. Here are some possible titles:

- Application Resource Manager

- Global Process Consultant

- Process Consultant

- Business Lead

- Programmer

- Subject Matter Expert

Client Review Team

List the principal reviewers on the project. This information is important because it ensures that reviewers have been assigned and that they have been limited to a manageable number. Often, some members of the Client Project Team will also serve as reviewers.

Writing Project Team

List the project team members assigned to the project:

- Documentation Project Manager

- Writers

- Editors

- Artists

- Production Assistants

Roles and Responsibilities

Include here a statement about the kind of information and support all the responsible parties have promised to give to the project. This may include information about the kind of source material to be provided, who is responsible for coordinating reviews and consolidating comments, who must write progress reports, who is responsible for ensuring that a prototype of the product is made available to the writing staff, and so on.

Client's Schedule

Attach a copy of the milestone chart developed for your project, along with any spreadsheet information that addresses hours and costs associated with the project. You will probably want to include telephone numbers, fax numbers, and e-mail addresses for all project members.

Template B
Project Plan

Estimating Project Scope and Complexity

A project that lays out the development of several hardcopy manuals, online documentation, a training class, and an instructional video clearly has a more ambitious scope than a project that calls for a single user's guide. In looking for early indicators of the scope of a project, you must base your estimates on reliable ranges. Here are some suggestions:

Base your estimate on previous projects of apparently similar scope.

For example, you may look at three previous projects and discover that the user's guide for all three applications averaged about 50 screens of online information, plus or minus 10 percent. You might also discover that a previous online system produced for an earlier version of the application contained nearly 70 screens of information. However, you know that the new version of the application is supposed to be easier to use. You also know that, according to customer reports, the old documentation contained too much extraneous information about the engineering development process. You might then estimate that with better planning for the user's needs, you should be able to reduce the new manual to 50 screens of task-oriented instruction.

Develop a metric based on other project indicators, such as the number of development hours required to develop the application or modify the application.

For example:
Total Application Development Time = X hours
Documentation Time = Total Application Development Time x 20 percent

Estimating Project Time and Budget

Time

In estimating the time required to complete a project, you need to assess the potential risks. Essentially you must assess the risk associated with external dependencies and internal dependencies. Risks that fall outside of your sphere of control are called external dependencies. They include:

- Application stability and completeness

- Information availability

- Prototype availability of the application

- Availability of subject matter experts

- Effectiveness of reviews (information inspections)

The four dependencies within the publication manager's sphere of control are called internal dependencies. They relate to the publication staff's:

- Technical experience

- Writing and document design experience

- Audience understanding

To assess the risk associated with each of these dependencies, you can create your own matrix where you rank the importance of each dependency and evaluate the effect each has on your publication project.

Recognize that no early estimate is perfect. Be prepared to adjust course as needed during the life of the project and keep in mind that you must factor in time for the following types of activities:

- Scheduling meetings

- Planning agendas

- Writing progress reports

- Securing/resecuring resouces

- Tracking the budget, etc.

Budget

Once you have calculated the total number of hours needed for a project, you can produce a rough estimate of the dollars needed. publications projects are primarily labor intensive; few costs are associated with equipment or outside resources.

Summary of the Resource Estimating Process

- Using an early indicator of size, calculate the target hours required to complete the project by multiplying size by the complexity factor.

- Based on the number of hours available per day to work on the project, calculate the total calendar hours available for the project each month.

- Starting with one writer, assign enough writers to the project to meet the schedule.

- Factor in time for editing as a percentage of total writing time assigned if editing is performed by an assigned editor or peer editor.

- Add time for final production of camera-ready copy if this activity is performed by a production specialist

- Add time to produce graphics if this activity is performed by a graphic artist or illustrator.

- Factor in the time for project management as a percentage of the total time devoted to the project by writer, editors, graphic artists, and production specialists.

- Adjust the resource time until the total hours equal the number of hours originally targeted for the project and the final schedule requirements are met.

Creating a Preliminary Schedule of Milestones

A milestone schedule records the expected date of completion for each deliverable at each phase of the project. For example, if your deliverables include prototype screens of an online system, alpha version, beta version, and camera-ready version, each of these needs to be given a scheduled date of completion. Milestone schedules are dependent on activities in the application development life cycle or other events in the larger project schedule.

To track a project and determine if it is on schedule, you must know if milestones have been met. To control a project and guarantee that it will be completed on time and on budget, you must measure milestones. To measure a milestone, one must have something to measure. Measurable milestones require clear definitions of required deliverables. For example, you may define a measurable milestone for a first draft of a document in the following manner:

The first draft of the user guide will be complete when:

- 90 percent of all the technical information is complete

- 90 percent of the graphics are in freehand sketch form

- A table of contents and sample title page have been generated

- Development editing is complete, meaning that the organization meets the needs of the audience and all information is comprehensible

- A preliminary copyedit (for misspellings, punctuation errors, etc.) is complete

Note: Microsoft's *Project Manager* is useful for illustrating the schedule and tracking the project milestones.

Selecting publication Tools

The word processing, desktop publishing, graphics, and online documentation software tools selected by SME should be used. As of this writing, the Architecture and Standards (A&S) group have been assigned the task of determining the SME standards for these types of development tools. The A&S group indicated that a decision should be reached by 6/30/97.

Creating a Test Plan

Testing ensures that the information in the publication matches the application described. If you are writing an online instruction manual such as a user guide, you need to validate the system by performing each task with the finished application. In the validation, you ensure that the instructions accurately reflect the application in its final form.

Validation occurs in several ways for publications, some of them as part of the traditional life cycle and already planned. Validation occurs during some reviews when subject matter experts test the instructions against the application or consider the technical content in light of their own application or process knowledge. Validation occurs during application testing when the test teams use the documentation as part of their process. They verify that the instructions and the application match.

In the Project Plan, describe the methods you will use to assess the usability of the publications produced and ensure that quality standards are met.

Creating a Maintenance Plan

The final part of the Project Plan contains the plan for maintaining the publications products once the current project has been completed. Technical publications have a long life, frequently being revised and updated during the many years an application is available and being updated and maintained in the organization. You need to explain what plans you have made for maintaining the publications. For example, policy and procedure publications may be reissued on a regular schedule with emergency updates issued on an ad hoc basis in more ephemeral publications.

If your organization calls for frequent and regular updates of publications, you need to explain how those maintenance cycles will be managed. A brief statement of your maintenance plan will be effective in setting the stage for regular maintenance if it has never been done.

Template C
Audience Analysis Checklist

The questions listed here provide guidelines for conducting a user analysis. Some of the questions may not be relevant to your particular user groups.

Subject Matter Questions

- What is the user's level of schooling?

- What is the user's experience in performing this particular or similar tasks?

- What is the user's prior knowledge of the application?

- How did the user learn about this application? On-the-job training? Formal education? Training programs?

- Has the user been trained in the use of this or similar applications?

- How current is the schooling or training that the user has in this or similar applications?

- If the user has prior experience using this application, what are the depth and frequency of that experience?

Attitude Questions

- What is the user's attitude toward learning the new application or process? Enthusiastic? Curious? Worried? Hostile? Afraid?

- Is the user motivated to learn the new application?

- In general, is the user open to learning new behaviors and ideas?

- Does the user work alone on this application? Are there other in the users environment using the same application?

- Is there much turnover in the user's job?

- What is the impact of the new application on the user's job?

- What are the consequences if the user makes a mistake or performs poorly with the new application?

- Is the user under pressure to perform quickly or especially accurately with the application?

- How much has the user been involved in the decision to purchase or develop the new application?

Language/Terminology Questions

- Does the user know the specialized terminology in the field associated with the application? To what extent?

- What is the user's general skill with language? A fluent speaker? A hesitant speaker?

- Is the user familiar with the terminology used in the documentation and application? If not, what degree of difficulty does the user have with the terminology?

Tool Use Questions

- What is the user's reading level?

- Does the user express a preference for text or graphics as a primary leaning mode?

- What is the user's familiarity with using reference tools such as indexes, headers and footers, tables of contents, online search systems?

- What is the user's keyboard experience and ability? Mouse and cursor experience? Experience with graphic user interfaces?

Cultural and Behavioral Questions

- Are there differences in some users' workplace behaviors that will affect their use of the application or process?

- How have national and cultural differences among users affected their prior knowledge and prior experience?

- How do natural and cultural differences affect the users' environment? Do the users fall into a particular socioeconomic class in the culture that may affect performance with the application?

Template D
Content Specifications

This template provides you with the information you need to produce the Content Specifications for one of the deliverables on a publications project. The Content Specifications ask for more detailed information about audience, application definition, and business strategy as a basis for identifying users and their tasks in using an application. While the Information Plan addresses strategies for compiling a complete library of publications, the Content Specifications present a plan for completing a single element of the library.

The content Specifications template is very complete. You may not be able to fill in all the information asked for when you first begin the project; fill in information later as you learn more about it.

Begin your Content Specifications by providing the following information:

- Date

- Client company/project

- Working Title

- Project manager

Include review notes in your introduction to the Content Specifications. Content Specifications are usually delivered in first draft form, reviewed by the involved parties, and submitted for second-draft review and sign-off. Refer to the following guidelines to include appropriate notes and other information at both draft stages.

First Draft - Once all the client reviewers agree on the strategie s outlined in the Content Specifications, incorporate any remaining changes, and remove the date and time note included on the first draft. In its place, include a sign-off approval for the specification, which should be signed by the project manager and the client representative, as follows:

Please sign below to indicate approval of the Content Specifications.

_____   _____
Approver's Signature (Client)   Date

_____   _____
Title of Approver (Client)   Date

_____   _____
Approver's Signature (Project Team)   Date

_____   _____
Title of Approver (Project Team)   Date

Also add a note indicating that reviewers should contact the writing project manager if they have any questions about specifications.

Goals and Objectives of the Publication

If the writers on the team have not participated in the initial information planning, they need to thoroughly understand the thinking and decision making behind the plan. Even if they have participated in the initial planning, individual writers are planning single publications at this point and are planning in considerably more depth. The goals and objectives section of the Content Specification should, therefore, reflect each writer's understanding of both the project as a whole and his or her individual contribution to the project.

In this section, explain the goals and objectives you plan to meet with your design of this publication. First, describe how your publication fits into the entire library of documents being prepared for the application. Then, concentrate on your goals. What unique needs does this publication meet? Stating this information explicitly makes the purpose of the publication clear to the reviewers.

State your usability objective for the publication. What usability criteria might be used to measure the success of your design.

Application/Process Description

In this section, include a brief description of the application or process and its basic functions from the point of view of the Individual publication.

This information should provide more detail than the application or process description included in the Information Plan for the project. At the Content Specifications stage, you probably know more about the application or process functionality than was known while the Information Plan was being developed, so this should be fairly easy to do. However, do not include everything you know about the application or process in the description. Include only enough information to communicate the application's basic purpose and applications to the reviewers.

Audience Profile

Describe the background and experience of the audience(s) for the publication. What are their expectations about the application? In what kind of environment do they work? Are there any special circumstances surrounding their use of the application?

In this description, include only information that will have an impact on the final design and organization of the individual publication. For example, if one audience contains people with very similar educational backgrounds, this fact may be less important to the publications project than the fact that some have no MS Windows experience and will be expected to use a Windows based application.

Indicate how you gathered the audience information. For example, if you interviewed actual users, indicate as much. If there are no actual users and you must rely on perceptions about the audience, indicate that as well.

The audience profile for the Content Specifications differs from the one included in the Information Plan in two ways. Because the Content Specifications describe the audience for an individual library publication, it may describe only a subset of the audiences addressed in the Information Plan. Also, at this point in the project, you know more about the audience than was known at the Information Plan stage, so your description of the Content Specifications audience is likely to be more detailed and accurate.

Usability Goal and Testing

Describe your usability goal for the publication and explain how you plan to test the usability. Describe the characteristics that your library publication will need if it is to meet the usability requirements of the audience. Briefly describe the type of tests you plan to conduct, when you plan to conduct them (the stages of the application or publication development), and what you plan to do with the results of the tests.

Publication Objectives

Describe the overall objectives for the publication. Briefly describe what the user will understand and be able to do while using this publication. Explain how the publication will be designed to support these objectives.

Publications Organization

Provide a brief overview of the structure of the various sections, explaining why they are sequenced as listed. For user's guides and other task-oriented material, identify all the essential tasks that will be described in the book. For reference or concept books, describe what the user will be able to do or understand after using each major section of the publication. For online documentation, describe the menu and link structures. This section defines the logic governing your proposed organization. Do not simply list the chapter titles and contents; you do that in other sections. Think of the content of this sections as an introduction to the detailed task information provided later.

Publication Content

Provide a list of the sections to be included in the publication. This provides reviewers with a way to check on the terminology proposed for section titles and provides them with an impression of the overall organization as it will be presented to the user.

Overview by Section

Using the section titles listed in the Publication Content Section, compose an outline of each section's contents as far down in the heading hierarchy as you are able to go at this point in the project (at least to second-level heads).

Avoid the temptation to provide a simple, unannotated outline of the section's contents. To get yourself in the proper frame of mind to compose this information, keep in mind your audience for the Content Specifications. You are addressing the client reviewers and members of your own project team, *not* the end users for the application. Your aim is to explain the publication's content to the reviewers, making very clear to them how you are structuring the publication to meet its objectives. When you list a section heading (which normally responds to a task), describe the contents and then answer the question, "Why include this information, and why here?" For example, you may decide to include an installation section as an appendix. To justify this choice, you might write, "Appendix A includes installation instructions. While installation is logically the first task the user performs, it is performed only once. For this reason, we have included installation as an appendix, so that the body of the manual focuses on the task information that the user will reference most frequently."

Begin your section description with an objectives statement. Explain how the user will be transformed after using the information in this section. Explicitly stating

what the user should be able to do after using each section helps keep you user- and task-focused, so that you exclude extraneous information.

Include your working titles for the headings within the section. Then, briefly describe the contents of the section, including any applicable information about any unique approach you are taking.

With the general structure and objectives laid out, follow these writing guidelines to ensure that your section contents are presented in a task oriented, easily organized way:

- Write the headings in the style you plan to use (such as infinitive, gerund, imperative).

- Organize the publication into appropriate sections, chapters, and parts, according to what you know about your audience and tasks:

- Organize the sections into modules by logical groups (aim for seven or fewer modules per section).

- If a section includes subheadings, make sure that there are at least two.

- If you are writing a combination manual, such as a combined user's and reference guide, consider grouping chapters within major parts so that users can find information more easily.

Make sure that your outline for a book includes descriptions (or placeholders) for all the applicable parts in the list that follows. This will be useful for planning production at the end of the project. All pages (even title pages and legal notices pages) must be listed to obtain an accurate page count for the manual. Use this list as a template so that you are reminded to include all the information needed to compose a complete publication:

- Front cover

- Inside front cover (This is where the legal notices, or disclaimers, go.)

- Title page

- Preface

- Table of Contents

- Part introductions (if parts are appropriate)

- Chapters or sections

- Appendixes

- Glossary

- Index

- Reader response form or mailer

- Back cover

For other types of publications, include the standard required sections as well.

Estimated Page and Graphics Counts

As you develop the detail for your outline and learn how tasks will be performed or information must be presented, you should find yourself visualizing the number of pages or other information units (screens of online help, minutes of video, hours of training) you will produce. Estimating pages or screens is not an easy task, but after a few projects it will become easier. Accurate page/screen count estimates are critical to the successful completion of the Content Specification milestone.

Make sure that you track your page or screen counts carefully as you continue with the writing phase. An increase to the counts typically means that more time will be needed to complete the writing.

Include information about the page or screen counts (or other metrics) you are estimating for the individual sections. Use the following table as a template.

Chapter	Number of Graphics	Total Number of Pages
Front matter		
Title page and copyright notice		
Table of contents		
Chapter 1: Name		
Section Name		
Section Name		
Section Name		
Chapter 2: Name		
Section Name		
Section Name		
Section Name		
Total		

When estimating, you might divide the topics or tasks into categories according to the difficulty of the task or the complexity and size of the topic. For example in looking at 50 tasks that user might perform, you may envision some to be simple to perform, some difficult, and some in the middle. Create a matrix like the following to track difficulty:

Task Difficulty		
Simple	**Medium**	**Complex**
11111	11111	11111
11111	11111	11111
11111	111(13)	1111(14)
11111		
111(23)		

The tic marks represent the 50 tasks allocated according to a difficulty measure. Difficulty might represent the number of steps in the task, the level of detail required to understand the steps, the number of illustrations needed, the number of screens and menu items to move through, the number of decisions required, or other issues that require more words and illustrations to become clear to the reader. Difficulty might also represent how complicated the task is for the writer to describe.

After you have classified each task into a difficulty category, calculate the average number of pages per category. Use the average number of pages in each category to estimate the page counts for the new material.

Developing Storyboards

After you have estimated the number of pages or screens, you should create storyboards for each of the pages or screens. Storyboards are drawings of the pages or screens indicating the text and graphics to be included. You can create these drawings using an illustration tool or by hand.

Storyboards are useful when you want to present your ideas to the other members of the development team and they put life into the outline you have produced for the Content Specification. Storyboards work especially well for online documentation projects.

Template E
Project Reporting
Spreadsheet

Template E can be found at:
I:\\DAL-S1A\data\share\everyone\gis_doc\template\excel\track.xls

Template F
Progress Report/Time Sheet

Template F can be found at:
I:\\DAL-S1A\data\share\everyone\gis_doc\template\excel\time.xls

Template G
Weekly Progress Report

Progress Report for:
EPIC (1/1/97 - 1/7/97)

Progress

- Jane Jones began work on the EPIC Information Plan. She identified potential problems that could arise without a local editor/manager to provide guidance to the writers on the project.
- Jane and John completed the EPIC Information Plan as far as they could with the information available. They submitted a first draft of the plan with many embedded questions for the reviewers to consider while looking over the plan.
- Due to the tight development schedule for the first phase deliveries, John made initial assignments based on the first draft of the Information Plan. Assignments were made based on the elements we perceived as the most stable; that is, we do not expect the material to be affected by any changes made to the Information Plan.

Plans

- Jane, Harry, and Ann will complete their first phase assignments by March 1. We will submit these drafts, as completed, for review.
- We will incorporate any changes on the Information Plan for final approval and sign-off.

Concerns/Issues

- We are concerned about the appropriateness of the page design for EPIC. First, it is for a standard 81/2 x 11 sheet. How will it translate to A4 for European use?
- We are concerned about the stability of the application. At the weekly project meeting, we learned that major changes had been made to the database. Since the engineers did not feel these were the last major changes, they initiated a database change tracking process. We are currently documenting the administration tables that were just changed for the first please. We are concerned that if the tables continue to change, we will be using time inefficiently and, as a result, our hours per page will increase.

Approval/Authorization

Client   Publications Team Member

By: _____By: _____

Title: _____   Title:
_____

Date: _____   Date:
_____

Template G can be found at:
I:\\DAL-S1A\data\share\everyone\gis_doc\template\word\progress.doc

Template H
Review Cover Memo

To:
From:
Subject:
Date:

Dear _____

I'm certain you've been waiting with bated breath for this first draft review copy to arrive. Well, here it is. Let me explain what you're getting.

The first draft of the _____ contains _____ pages or screens with:

All the text of the main body of the guide, except for Chapter 7 on installation
Sketches of all the graphics and all the screen dumps (attached to the end of each chapter)
A table of contents

You do not have the index or the preface or the final title page.

Here is what we need from you:

☐ Read each section thoroughly.

☐ Focus on the technical content

☐ Look out for missing information in addition to reviewing what is there.

If you note information that is incorrect or missing, either attach the information we need or write the information in the margins.

If you only mark something as incorrect or missing and don't give the new information, the writer will have to interview you for the information. That takes more time.

If you note that something should be deleted, please state why. Don't just cross something out.

We'll be happy if you find any typos as you read, but you don't need to worry about them. We have several more copyediting rounds scheduled, and we'll catch everything eventually.

We predict it will take you about 8 hours to review 150 pages. That's about 20 pages per hour. Please leave yourself enough time.

The walkthrough is scheduled for Tuesday at 9:00 am in the Chippendale conference room. We expect the meeting to take at least 6 hours.

If you cannot attend, please give your marked copy and any other comments to Joe. He'll consolidate the comments before the meeting, so get them to him by Monday morning. If you find a lot of problems, I'd appreciate it if you'd call me in advance.

If you need any more information, call me at extension _____. I'll be near my office all week.

Template H can be found at:
I:\\DAL-S1A\data\share\everyone\gis_doc\template\word\memo.doc

Template I
Publication Change Request

Project Name

_____

Initiated by _____ Date

_____

Description of the change

_____
_____
_____

Publications affected

_____
_____
_____

Number of affected pages

_____
_____
_____

Number of affected illustrations

_____
_____
_____

Estimate of page count increases or decreases

_____
_____
_____

Estimate of illustration increases

_____
_____
_____

Start date _____Completion
Date_____

Effect on resources

People resources

_____
_____

Schedule

_____
_____

Approval Signatures

Publications project manager _____ Date
_____

Development manager _____ Date
_____

Other _____ Date
_____

Index