

Guide to Producing Online Documentation

October 1989

This internal manual describes the procedures writers, editors, writing project leaders, and Graphics Services personnel follow when creating online documentation for the DECwindows Bookreader.

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Production Note

This book was produced with the VAX DOCUMENT electronic publishing system, a software tool developed and sold by Digital. In this system, writers use an ASCII text editor to create source files containing text and English-like code; this code labels the structural elements of the document, such as chapters, paragraphs, and tables. The VAX DOCUMENT software, which runs on the VMS operating system, interprets the code to format the text, generate a table of contents and index, and paginate the entire document. Writers can print the document on the terminal or line printer, or they can use Digital-supported devices, such as the LN03 laser printer and PostScript printers (PrintServer 40 or LN03R ScriptPrinter), to produce a typeset-quality copy containing integrated graphics.

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Preface

The *Guide to Producing Online Documentation* collects information required by all CUP personnel involved in producing online documentation.

A broad description of the relation of writers, editors, Graphic Services personnel, and online project leaders in the online production process appears in Chapter 1. Specific information for each of these individual groups appears in subsequent chapters.

Writers maintaining hardcopy books may consult Chapter 2 for assistance in adapting an existing set of SDML source files so that they produce an online book when processed for one of VAX DOCUMENT's online doctypes and in enhancing a book's appearance when it is displayed by the DECwindows Bookreader.

Writers of new manuals should refer to Chapter 2 for online writing guidelines.

Editors should turn to Chapter 3 for information about their responsibilities in the hardcopy/online and online-only production processes. Chapter 4 discusses the hardcopy/online and online-only production processes and the work performed by Graphic Services in producing online documentation.

The duties of the online project leader are discussed in Chapter 5.

Associated Documents

The primary resource for DOCUMENT online coding is *Coding Documentation Source Files for the DECwindows Bookreader*. CUP Engineering frequently updates this document to reflect the latest baselevel of the online software. Obtain a copy from:

```
CLOSET::KITS_:[DOCUMENT.V12]WRITER_GUIDELINES.PS
```

You can obtain complete information about the Screen Capture and Image Manipulation Program (UTOX) from the *UTOX User's Guide*. Obtain a copy from:

```
AIRBAG::SYS$PUBLIC:[UTOX]UTOX_USERS_GUIDE.PS
```

You can also obtain a UTOX beginner's guide from:

```
NEWDOC::SYS$INFO:UTOX_GET_STARTED.PS
```

For a complete discussion of the Raster Graphics Editor System (RAGS), see the *Guide to VAX RAGS*. You can obtain either an LN03 or PostScript copy from the following location:

```
CLOSET::W4_:[PUBLIC.RAGS.V051]RAGS.LN03  
CLOSET::W4_:[PUBLIC.RAGS.V051]RAGS.POST
```

1

Introduction

The skills of writers, editors, artists, proofreaders, and project leaders are all required in the effort to produce high-quality online documentation. The online documentation effort requires that each individual understand and follow a set of defined procedures for fulfilling his or her role and that all individuals cooperate in exchanging information and files in an orderly and defined manner.

1.1

Overview

The online documentation effort involves the following three phases:

- Pre-production
- Production
- Manufacturing

Writers, editors, and proofreaders perform pre-production work; writers are less involved in the production phase. The manufacturing phase involves the online documentation release engineer, the Software Quality Maintenance (SQM) group, the Software Supply Business (SSB) group (formerly the SDC), and Graphic Services. An online project leader in the writing group monitors the work performed in all three phases.¹

The production phase for online documentation can involve either of two defined production processes:

- Online-only—The manual produced in online format only or its being prepared for its initial online release. The writer must adapt the book's source files so that they successfully build for a VAX DOCUMENT online doctype. A previously-converted online manual with revisions (and no associated hardcopy edition) also goes through the online-only production cycle.
- Online/hardcopy —The manual will be available in online and hardcopy forms at the same time.

This manual describes the procedures writers, editors, Graphic Services personnel, online project leaders, and compact disc (CD) release engineers follow to support an online-only or online/hardcopy release.

¹ The tasks assigned to the online project leader role may in reality be performed by editors, writers, and documentation management.

1.2 Producing Online Documentation

Documentation managers, supervisors, and project leaders are responsible for the following tasks:

- Deciding which books are published online-only or hardcopy-only
- Deciding which books are published simultaneously online and hardcopy (online/hardcopy)
- Developing writing, conversion, and production schedules
- Ensuring that schedules are met
- Monitoring the quality of online books

Writers, editors, artists, operators, proofreaders and CD release engineers are responsible for writing, editing, and producing online books according to schedules defined by management.

The following tables illustrate the flow of the online production processes and indicate who is responsible for a given task. The accompanying tables further explain these responsibilities.

Table 1-1 illustrates the online-only production cycle.

Table 1-2 illustrates the online/hardcopy production cycle.

The abbreviations used in the tables indicate the individuals responsible for online book publication tasks, as follows:

Abbreviation	Meaning
M	Writing manager
W	Writer
E	Editor
GS	Graphic Services
PL	Project leader ¹
DB	Document set builder (VMS writing group only)
RE	Release engineer
SQM	Software Quality Maintenance group
SSB	Software Supply Business group
V	Vendor

¹The tasks assigned to the online project leader role may in reality be performed by editors, writers, and documentation management.

For additional information about any task mentioned in the tables, refer to the appropriate chapter in this manual.

Table 1-1 Online-Only Tasks and Responsibilities

Task	Process
Preproduction Tasks	
Writing book	Writer
Editing book	Editor
Converting files to online ¹	Writer
Coordinating art conversion ¹	Editor
Converting art to online ¹	Artist
Checking converted art ¹	Proofreader
Performing online bookbuild	Writer or document set builder
Checking book online	Writer and editor
Submitting online submission form	Project leader
Creating preliminary product definition form	Release engineer
Final Production Tasks	
Putting files into CMS	Writer
Checking book online	Editor and proofreader
Building book for final production	Writer or document set builder
Checking final bookbuilds	Writer, editor, and proofreader
Making final corrections	Writer or GS operator
Performing final bookbuild	Writer, document set builder, or GS operator
Submitting online books to release engineer	Project leader
Manufacturing Tasks	
Applying and testing licenses	Release engineer
Submitting files to SQM	Release engineer
Premastering files	SQM
Sending files to SSB	SQM
¹ These tasks only required only for hardcopy books never previously published online.	

INTRODUCTION

1.2 Producing Online Documentation

Table 1-2 Online/Hardcopy Tasks and Responsibilities

Task	Responsible Individual
Preproduction Tasks	
Writing book	Writer
Editing book	Editor
Obtaining LPN	Editor
Requesting CMS library	Editor
Opening CMS Library	CMS librarian
Converting files to online ¹	Writer
Coordinating art conversion ¹	Editor
Converting art to online ¹	Artist
Checking converted art ¹	Proofreader
Coordinating art package	Editor
Preparing art package	Artist
Inserting pica measurements in figure file tags	Writer
Performing hardcopy and online bookbuilds	Writer
Checking book online	Writer and editor
Submitting printspec info for hardcopy	Editor
Submitting online submission form	Project leader
Creating preliminary PDF	Release engineer
Final Production Tasks	
Building book for final production	Writer
Putting files into CMS	Writer
Submitting book to GS	Editor
Generating PostScript and VT600 copies	GS operator
Checking PostScript and VT600 copies	Editor and proofreader
Performing final bookbuilds	GS operator
Checking book online	Editor, proofreader, and GS operator
Making final corrections	GS operator
Preparing repro package	Editor
Submitting online books to release engineer	Project leader
Manufacturing Tasks	
Submitting repro package to Print Purchasing	Print coordinator

¹These tasks only required only for hardcopy books never previously published online.

(continued on next page)

Table 1-2 (Cont.) Online/Hardcopy Tasks and Responsibilities

Task	Responsible Individual
Manufacturing Tasks	
Applying and testing licenses	Release engineer
Submitting files to SQM	Release engineer
Premastering files	SQM
Sending files to SSB	SQM

2

Online Writing Guidelines

This chapter provides updated procedures for writing manuals that will be published online. It includes the following information:

- References to additional documents
- Details to include in your docplan
- An explanation of the pre-production meeting
- Instructions for creating or converting art
- Writing guidelines
- An overview of the cleanup procedures for converting a hardcopy book to online format
- Tips on DOCUMENT coding conventions and tools for facilitating online builds
- Procedures for building and viewing an online book
- A summary of the requirements for submitting a book to Graphic Services

2.1

Overview of Writing Procedures

A primary goal of the VAX DOCUMENT software is to allow you to produce a book for any given output device, in any defined format, from a single set of SDML source files. To support online documentation in a form readable by the DECwindows Bookreader, VAX DOCUMENT has introduced the BOOKREADER output destination and the ONLINE doctypes.

The ONLINE doctypes and DECwindows Bookreader software do not require the addition of new SDML tags to existing DOCUMENT source files. However, they do rely on certain coding conventions.

If you are converting a hardcopy book to online format, some of the conventions required by the ONLINE doctype quite possibly were not followed in producing the original hardcopy-oriented source files. Additionally, because the online form of output has made hardcopy, pasted-in artwork obsolete, any artwork included in a given book must be redrawn and the associated SDML code must be revised. Finally, source files must provide symbol-names for each piece of a book so that the DECwindows Bookreader can find any referenced location easily.

When you are writing a new manual, you have to be concerned about three main areas: writing the manual, coding the manual, and meeting certain production requirements. The advent of online documentation has changed and added some procedures in each of these areas.

2.2 Obtaining Information About Producing Online Documentation

The most authoritative information about coding DOCUMENT source files to be built in online format viewable by the DECwindows Bookreader appears in *Coding Documentation Source Files for the DECwindows Bookreader*. This document contains information about the DOCUMENT command line, the DOCUMENT tags that are required by the online doctypes, and the tags that help make the output file more readable when displayed by the DECwindows Bookreader. It also includes information about the location and installation of the Bookreader software and tools, as well as a list of known problems.

CUP Engineering continuously revises *Coding Documentation Source Files for the DECwindows Bookreader* to reflect the latest baselevel of the online software. Obtain a copy from:

```
CLOSET::KITS_ : [DOCUMENT.V12]WRITER_GUIDELINES.PS
```

All new online VAX document tags discussed in this chapter are described fully in *Coding Documentation Source Files for the DECwindows Bookreader*.

Individual writing groups have supplemented these online writing guidelines with group-specific guidelines. For instance, the VMS Documentation group has required that SDML source files be named with the .SDML file extension (not .GNC). This is *not* a requirement of the online software.

You may also find useful information (and food for thought) in the CLOSET::ONLINE_BOOKBUILDING notes conference. This is the conference in which to report problems with the online bookbuilding tools and offer suggestions and criticisms. It is monitored by CUP Engineering and the DECwindows Bookreader engineers.

2.3 Writing Your Docplan

When writing a docplan for a manual that is to be produced online, you should consider the following points:

- As well as indicating that your manual is a new or revised document, the docplan should state whether the manual will be published in online-only or in online and hardcopy versions.
- The docplan should state the online doctype of the manual, either ONLINE.REFERENCE or ONLINE.HANDBOOK.
- The milestones listed in the docplan should allow ample time for editing (including extra time for index editing during the second pass edit) and proofreading support of the online version.
- The docplan should state whether online help that requires editing and proofreading will accompany the manual.
- The docplan should state art requirements, such as how many unannotated and annotated screen captures and figures will be included in the manual.

2.4 Attending the Pre-Production Meeting

Before you submit a book to Graphic Services (GS) for online proofreading or online/hardcopy production, a pre-production meeting should be held to define the work required by GS.

As a writer, you will need to provide the following information at the meeting:

- Title and LPN for each book
- Schedule of submittal of each book, including the date of submittal to GS and date of submittal to SSB
- Type of production required (online/hardcopy, online-only, hardcopy-only)
- Page count estimate
- Estimated number of new and revised art figures, and anticipated format (UTOX, RAGS)

You might also need to provide information on the submittal process (for online-only books) and the target Online Documentation (OLD) disc. For more information, see Chapter 3.

2.5 Creating Art

Online documentation has changed the manner in which art is created and delivered for your book. No longer will your editor deliver to you a copy of hand-drawn art. However, an editor will work with you to determine the art requirements for your book. (For example, will existing art need to be corrected or modified? What new art will Graphic Services need to create? Will screen captures be included?)

This section describes which procedures you should follow to ensure that completed art will be included in your online and hardcopy versions.

Note: As always, you should conceptualize and request your art as early as possible in the writing process. You should submit all art six weeks before final production.

2.5.1 Creating Art for Review Drafts

If you can give your art requirements to Graphic Services early enough, the artists can create the new art for your review drafts. However, if that is not possible, follow the procedures in this section to create the art yourself. This section also explains how to use screen dumps and existing art for your review drafts.

2.5 Creating Art

2.5.1.1 Creating New Art

You can use the <LINE_ART> and <ENDLINE_ART> tags, as always, to produce monospaced keyboard-character art in online and hardcopy review drafts. You can also generate your own art for review drafts using RAGS. The RAGS kit save set is available in:

```
CLOSET::W4_[PUBLIC.RAGS.V051]RAGS051
```

You can copy the *Guide to VAX RAGS* in .LN03 or .POST formats from the same directory:

```
CLOSET::W4_[PUBLIC.RAGS.V051]RAGS_USERS_GUIDE.XXX
```

2.5.1.2 Creating Screen Output

Use the UTOX utility to capture screens that you want to display in your documentation. UTOX produces screen output in the form of .SDML files in a variety of formats, for example .SDML-BIN for the Bookreader, .SDML-PS for PostScript files, and .SDML-SIXEL for sixel files.

You must generate all screen images (for the final draft as well as for review drafts); Graphic Services does not generate screen art. If you are including UTOX-generated screens in your manual, be sure to talk to your editor early in the draft cycle about design and sizing issues.

Unannotated Screen Art

After you generate unannotated screen art, store the SDML-xxx graphics files in your directory with the other book elements. You should maintain these UTOX graphics just as you maintain your individual chapter files and other book elements. You should precede the name of the screen file with the LPN of your manual, as in the following examples:

```
9999CUSTOMIZE.SDML-BIN
9999CUSTOMIZE.SDML-PS
9999CUSTOMIZE.SDML-SIXEL
```

Don't use chapter or part numbers in the file name.

Annotated Screen Art

If any UTOX-generated screens need graphic annotation, you should create hardcopy and online samples for Graphic Services. Graphic Services will annotate the screens using RAGS, apply art control numbers, and place them in the ARTOUT directory on DONVAN.¹

From then on, annotated screen art will be considered GS-generated art. Graphic Services will perform any modifications to the annotated screen art. If the screen image of an annotated screen needs to be changed, you should resubmit a hardcopy and online sample of the new screen image to Graphic Services.

The UTOX kit save set is available in:

```
AIRBAG::SYS$PUBLIC:[UTOX]UTOX020
```

¹ For VMS books, the production coordinator will copy the art to the ARTLIB directory on STAR.

You can copy the *UTOX User's Guide* in PostScript format from:

```
AIRBAG::SYSS$PUBLIC:[UTOX]UTOX_USERS_GUIDE.PS
```

You can also obtain a UTOX beginner's guide from:

```
NEWDOC::SYSS$INFO:UTOX_GET_STARTED.PS
```

CUP offers a training session on using RAGS and UTOX. Contact Mike Etzel on DONVAN::ETZEL for more information on this session.

2.5.1.3 Using Existing Art

If you need any existing art pieces, you should request these from your editor. Your editor checks with Graphic Services to determine if these art pieces have been converted to RAGS art. If not, your editor submits marked-up copies of existing art to Graphic Services. An artist redraws the art and places the revised art file in an art directory.

2.5.2 Creating Art for Final Drafts

At least six weeks before final production, you should give instructions for new art to Graphic Services. If all or part of your art requirements are changing at this point, inform your editor and artist that you will be requiring art and negotiate a deadline for submitting the requirements.

The artists generate source files using RAGS. The same source files will be used to create the formats that will generate online and hardcopy versions of the art. These formats follow:

- DECW\$BOOKFIG for BOOKREADER output
- SIX for LN03 output
- PS for Postscript output

The artist will place the finished art files in the ARTOUT directory on DONVAN.¹ When the art package has been completed, the editor will give you a final art control list.

Refer to Section 2.5.1.2 for information on creating screen output in your final drafts.

2.5.3 Coding a Figure

For information on coding a figure for online viewing, refer to step 4 of the Required tasks of Section 2.8.3.

Refer to Section 2.10.1 of this manual for procedures you should follow after the artists complete the art package.

¹ For VMS books, the production coordinator will copy the art to the ARTLIB directory on STAR.

2.6 Writing the Manual

This section includes guidelines that will help you organize your books so that readers will easily find the information they need. You should follow these guidelines throughout the writing cycle. Trying to implement them all at the end is ineffective.

The guidelines are organized by the following topics:

- Organizing information
- Writing introductions
- Using cross-references
- Using terminology
- Using tables, figures, and examples
- Writing and reviewing the index

When writing a manual, refer to the *32V Style Guide* for 32V style and usage information.

2.6.1 Organizing Information

Organize information in a consistent and logical way. At the highest level, an outline, which develops into a table of contents, should demonstrate a document's logical structure. At the chapter and section level, the text should reveal information in a logical manner. Descriptive text should disclose information progressively. Reference material should provide information in a consistent format that reflects how the information is to be used. Make sure paragraphs and sentences stick to one subject.

This section recommends several techniques to help you organize your information and achieve clarity in your documentation.

2.6.1.1 Writing Book Titles

Now that users will be scanning the bookshelf file to find the book that contains the appropriate information for them, it is important that the book titles accurately describe the information in them.

2.6.1.2 Writing Chapter and Part Titles

Write chapter and part titles to specifically describe what information the chapter or part contains. For example, the following two chapter titles are more specific than the generic title **Interprocess Communication**:

Interprocess Communication Concepts

Interprocess Communication on a VMS System

Make sure every chapter title has text following it. The Bookreader uses heads to define Next and Previous Topics; if, for example, you have no text following a chapter heading, pressing on Next or Previous Topic will bring up the chapter title alone on the screen. Therefore, following the chapter heading, give a brief overview of the upcoming chapter before you begin with the first HEAD1.

2.6.1.3 Writing Section Headings

Section headings are especially valuable for the online reader because the reader maneuvers through the book by clicking from one head to another. Like chapter headings, section headings should give the reader a clear idea of what information is in the text that follows them.

Keep the following points in mind when writing section headings:

- Make sure section headings accurately reflect contents of sections.
- Do not use more than 3 header levels (3.1, 3.1.1, 3.1.1.1). Deeper outlines are difficult to follow.
- Use abundant section headings so that text is well-labeled and easier to find.
- Where possible, use noun phrases for chapter titles and gerund phrases for first level headers. For example:

```
3      Installation Procedures
3.1    Installing the Software
```

- Avoid starting section header titles with *a*, *an*, or *the*.
- Repeat all important header title information; do not assume the reader has read the head. For example:

```
3      Source, Intermediate, and Final Files
      To create source, intermediate, and final files...
      not
      To create these files...
```

2.6.1.4 Creating White Space

Reading information on line can be visually straining. Give users white space! To create white space, use the following techniques:

- Be concise. After writing a section, review it to see whether you have been verbose or redundant. Decide whether you really *need* each paragraph.
- Avoid long narrative paragraphs. Check to see whether long paragraphs can be split into shorter paragraphs.
- Use lists. They clarify and emphasize the information you are presenting.
- Consider replacing text with art.

2.6.1.5 Using Highlighting

Do not overuse bold, italics, and all caps. These typeface changes are more noticeable in an online document. Make your point using text and graphics, not highlighting.

Note: Remember that user input in examples (all text after a <U> tag) is bold in online text.

Online Writing Guidelines

2.6 Writing the Manual

2.6.2 Writing Introductions

Well-focused introductions are useful because they enable readers to decide whether they can get the information they need in the text that follows them. The preface, chapter introductions, and section introductions are some of the pathways readers will take to find information in your manual.

2.6.2.1 Writing the Preface

State the book's purpose clearly in the preface. Users need an easy way to make sure they're looking in the right book. List each chapter and briefly describe the topic for each one. Clearly identify the audience of the manual and list related documentation.

2.6.2.2 Writing Chapter Introductions

Use chapter introductions as springboards for locating material in the sections that follow. For each chapter introduction, consider including an unnumbered list of the major topics discussed in that chapter. Think of chapter introductions as guides that offer pointers more descriptive than those in the Table of Contents but less detailed than those in the index.

2.6.2.3 Writing Section Introductions

Whenever possible, make sure that every first level head section includes an introduction to the information you are presenting in that section.

2.6.3 Using Cross-References

The DECwindows Bookreader enables you to create *hot spots* when you cross-reference information in your manual. A hot spot is a cross-reference that takes readers directly to the referenced material when they click on the cross-reference. This enables readers to find cross-referenced information easily. The DECwindows Bookreader defines the contents of a hot spot from information supplied by the <REFERENCE> tag.

You can use cross-referencing in the Preface, as well as throughout the manual. Keep the following points in mind when you cross-reference information:

- Create hot spots in the chapter titles when you describe each chapter in the preface. The user will be able to click on the chapter title and go directly to the chapter.
- When introducing a chapter or section, refer to other books or sections within your manual that will give the reader background or additional information.
- Use cross-references throughout the manual where appropriate.

2.6.4 Using Terminology

Keep the following guidelines in mind when you use terminology in your manual:

- Use consistent terminology. Do not use synonyms interchangeably.
- Define all terms at the first occurrence. After you define a term, use that term throughout the manual. Redefine if necessary for reader understanding.
- At first occurrence, spell out an abbreviation or acronym and follow it with the shortened form in parentheses.
- Do not use *above* and *below*. Be specific when you point a reader to another section for more information on a certain term or topic. If the reader clicks on a properly-coded section reference, the Bookreader will immediately take the reader to that section.

2.6.5 Using Tables, Figures, and Examples

Table, figure, and example placement is important. It makes the online display visually attractive and helps the reader quickly find information. Consider the following points when using tables, figures, and examples:

- Always provide clear introductions to tables, figures, and examples.
- Make table, figure, and example titles clear; make sure titles match the table/figure/example content.
- Do not put too much information in any one table column. Tables are meant to provide quick and easy-to-read information. If there is too much text, the user may not bother to read it.
- Use lots of examples. Good online and hardcopy writing requires extensive use of examples.
- Decide whether tables, figures, or examples should be formal or informal. Formal tables, figures, and examples have captions and symbol-names and are listed in the table of contents. When displayed by the Bookreader, formal tables, figures, and examples appear in a suitably-sized pop-up window.
- If you want a table, figure, or example to be informal, decide whether you want to create a pop-up window for it. You would want to create a pop-up window for an informal table, figure, or example if it is too wide (over 34 picas) or too long for display in the DECwindows Bookreader topic window. Do not use a pop-up window for an informal table, figure, or example if it easily fits in the topic window.
- Whenever you annotate a figure or example that is to appear in a pop-up window, make sure to include the annotation within the pop-up window. Otherwise, the annotation will be hidden by the figure or example.

For more information on coding formal and informal tables, figures, and examples and creating pop-up windows, refer to Section 2.8.3.

Online Writing Guidelines

2.6 Writing the Manual

2.6.6 Writing and Reviewing the Index

Creating an effective index for a book is vital to its success. This is especially important for online documentation because the index and table of contents are the only direct pathways to specific information in a book. To ensure that your book is indexed thoroughly and consistently, use the following guidelines for writing and reviewing the index.

Note: Every draft that you give to your editor should include an index. Your editor will edit the index thoroughly during the second pass edit. Therefore, you should schedule more editing time during the second pass edit.

2.6.6.1 Writing the Index

For every chapter, create an index entry based on the information in each of the following items:

- Chapter title
- Every header
- Every subhead
- Main topic of each section and subsection
- Each paragraph that contains pertinent information within a section—even though the paragraph in which it is described is not preceded by a header

For instance, the color function might be described in an untitled paragraph. Index the color function for it is pertinent information to the user.

- Tasks and concepts

Imagine the tasks. Think about the kinds of tasks people might do while using your book. Imagine doing the tasks. Try to figure out *why* you would be reading a particular paragraph, what you would be looking for. Then decide whether you have an appropriate index entry or pointer in the table of contents to guide the user to the information.

To point out meaningful paths to critical information, describe a specific task or concept through the use of descriptive subentries. Meaningful paths to critical information can be shown to the user in this way. The following example describes all the information about files found in a chapter;

— Files

converting, 2-17
displaying, 2-14
organizing, 2-12
sending, 2-14
using FileView, 2-17

Note that there was not a section entitled *Files* within this book chapter. Individual paragraphs contained pertinent file information.

- New terms
- General subject matter of tables and figures, not specific items. It is particularly important to index informal tables and figures because they do not appear in the table of contents.

Templates

The preceding process assumes that descriptive titles are used for chapters, heads, and subheads. For books that use templates to document information such as routines, commands, or qualifiers, many of the headers are not descriptive. To thoroughly index template information, make sure you describe the task associated with the subject. The approach shown in the following four primary entries helps you to index a routine (and similar items) completely.

- 1 DO_SOMETHING routine, 4-2
- 2 Something
doing, 4-2
- 3 Doing something, 4-2
- 4 Routines
DO_SOMETHING, 4-2
UNDO_SOMETHING, 4-15

Hints

Keep the following recommendations in mind:

- Use a *t* or an *f* after an entry to indicate a table or a figure, as shown in the following example.

Document content aggregate, 6-6

items in, 6-3t

Note: Because page numbers are not listed in the online index, the *t* or *f* will not appear in the online version of the manual.

- Use cross references and synonyms whenever possible. This allows the user to find the same information under more than one primary entry.

For example, the following index entries would point to the same information:

- Allocating color
- Colors
- Hues
- Make sure that cross references that are indicated really exist.
- Instead of long page ranges, use subentries. Short page ranges can help the reader gauge the importance of a given entry (i.e., Mapping windows, 1-6, 3-16 to 3-18).

2.6 Writing the Manual

- A primary entry consists of a noun or a noun phrase. A noun is generally preferred.

In some instances, an action is best described in a primary entry by a noun phrase consisting of a gerund and a noun (for example, *Debugging programs*).

In other instances, a gerund best describes the task (for example, *Scrolling*). Use technically meaningful gerunds rather than vague entries such as *Using* and *Inquiring*.

Note the use of gerunds throughout the index of *The Chicago Manual of Style*.

Refer to the following for more help with indexing:

- *The Role of the Index in Western Civilization*, an internal document (written by Susan Hunziker)
- Index command procedure called Index-O-Matic that prints index entries within text (written by Don Topaz)

Note: The Bookreader doesn't go directly to the indexed term; it goes to the section heading of the section that contains the indexed term.

2.6.6.2 Reviewing the Index

Follow these index reviewing guidelines to ensure that your index is complete. When viewing your book online, check that your index is complete by doing the following:

- Do an index-based search.

To do an index-based search, click on a term in the index and ensure that the corresponding display includes the appropriate information. Do this for all entries, if possible.

- Do a text-based search.

To do a text-based search, pick a random paragraph, search for an important term, and go to the index (or the table of contents) to see whether the term is listed there.

2.7 Converting Hardcopy Books to Online Format

This section is only applicable to hardcopy books that have never been published in bookreader format.

The cleanup required to convert a hardcopy book to online format consists of two phases. The first phase involves persuading VAX DOCUMENT to process a book's source files for the online doctypes and BOOKREADER destination. The second involves ensuring that all parts of an online book are viewable by the DECwindows Bookreader and, time permitting, revising the source code such that the book's information is more accessible and its display more pleasing.

Online Writing Guidelines

2.7 Converting Hardcopy Books to Online Format

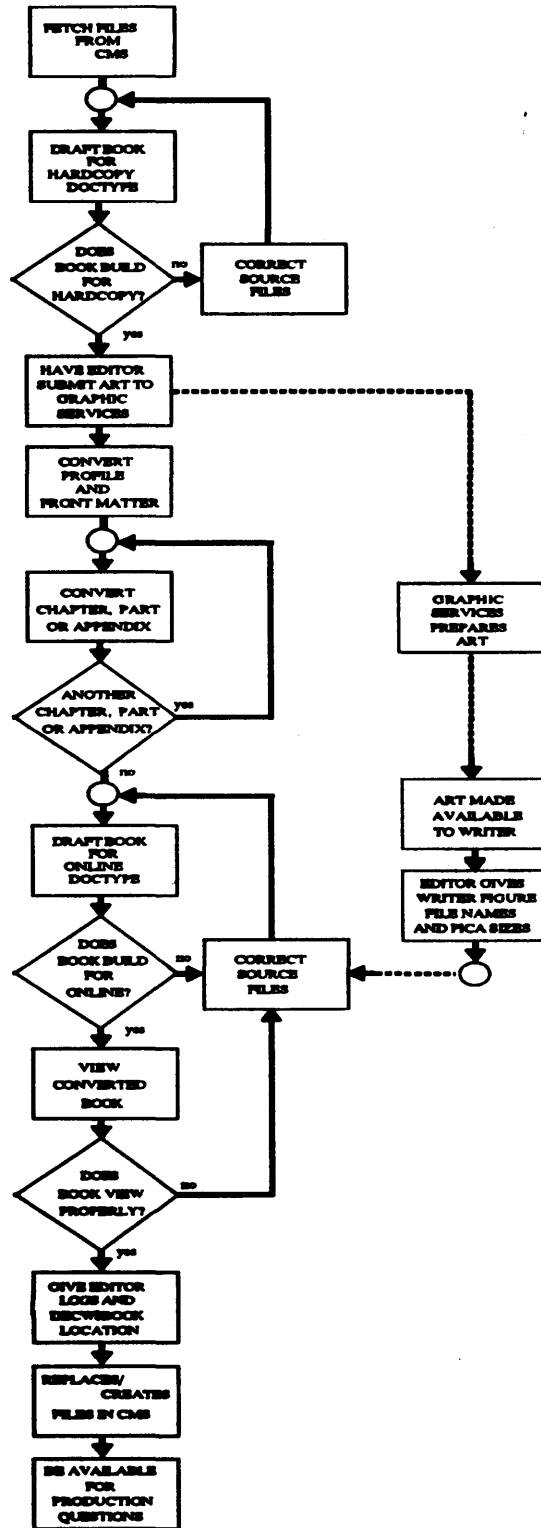
Online cleanup is the procedure by which hardcopy-oriented DOCUMENT source files are made to comply with the online doctypes and DECwindows Bookreader software. The purpose of online cleanup is to produce a set of source files that can be successfully built for an online destination, the results of which can be successfully viewed by the DECwindows Bookreader. Online cleanup has no effect on how a set of source files builds for a hardcopy destination.

Figure 2-1 depicts the general flow of online cleanup from the viewpoint of the writer.

Online Writing Guidelines

2.7 Converting Hardcopy Books to Online Format

Figure 2-1 Online Cleanup



2.7 Converting Hardcopy Books to Online Format

To prepare for online cleanup, perform the following tasks:

- 1 For a given book, reserve the following from the book's CMS library:
 - Profile
 - All elements
 - All included files
 - XREF file (if any)
- 2 Build the book for a hardcopy doctype. If the book does not build for a hardcopy doctype, it will not build for an online doctype. It may be difficult to debug errors if they are mistakenly attributed to the online software.
- 3 Ensure that the editor has submitted to Graphic Services a revised art package for the book. (See the description of editorial tasks in Chapter 3.) Graphic Services converts all hardcopy art to online art (in SIX, PS, and DECW\$BOOKFIG forms). You can proceed with online cleanup and online viewing without having the art available. When the editor informs you that the art is complete, you must copy it from Graphic Services to your build directory, build the book, and verify that all art is present and viewable.

After performing as much online cleanup as is appropriate for your book and its schedule, you can rely on the trial-by-error method of bookbuilding. VAX DOCUMENT errors, as always, are evident in the bookbuild LOG file (and are described in Section 2.10.5); problems with the display of an online book can be uncovered with a bit of scrutiny (as discussed in Section 2.12). Most problems are easy to fix.

2.8 Coding the Manual

Several DOCUMENT coding conventions are required to successfully build a book for the ONLINE doctype and to make the output more readable. This section provides information on the coding conventions a writer should use to do the following:

- Convert existing source files to be used by the DECwindows Bookreader
- Code the source files for a new manual to be used online

The following subsections describe areas of a book's source files that typically need to be modified to build properly for online display. Certain steps ensure that all information in the book is accessible by the DECwindows Bookreader; these steps are listed as required in the text. Other steps enhance the appearance and improve the readability of a book; these tasks are listed as "Also Recommended" in the text. If you have enough time, you should perform these steps as well as all required ones.

If a particular step does not apply to your book, skip it; if you aren't sure, use the DCL SEARCH command on the book's source files to determine whether it does.

2.8.1 Coding the Book's Profile

Examine the book's profile, as follows. If time permits, perform the recommended tasks as well as the required ones.

Required

- 1 Place an `<INDEX_FILE>` tag just before the `<ENDPROFILE>` tag.
- 2 If the book is—in its entirety—a glossary (that is, it is made up of `<GTERM>` and `<GDEF>` tags) or a message manual (that is, it is made up of `<MSG>` and `<MSGS>` tags), place the following tag after the `<PROFILE>` tag:

```
<SET_ONLINE_TOPIC>(MASTER)
```

These tags generate table of contents entries for master glossary volumes and messages manuals—books that do not have chapters and sections like other books. These table of contents entries take the following form:

```
BADIF ... BADJOUCOM  
BADJOUPOS ... BADJOUSTR
```

or

```
program ... protection  
protocol ... pure code
```

For a manual with normal chapters and sections—even one that also contains messages and glossary entries—`<SET_ONLINE_TOPIC>(MASTER)` is neither required nor recommended.

See Section 2.8.4 for a description of additional cleanup you must perform on glossary entries and messages.

Also Recommended

- 1 For a manual that is *not* a message manual or master glossary, use the `<SET_ONLINE_TOPIC>` tag to establish the optimal topic granularity for the book. It is useful to place this tag after the `<PROFILE>` tag, if all chapters of the book have roughly the same number of `<HEAD1>`, `<HEAD2>`, and `<HEAD3>` tags—and each subsection or sub-subsection generally contains $\frac{1}{2}$ page or more of information.

What is topic granularity? The DECwindows Bookreader displays pieces of a book, called topics, in a window. As you view a book with the DECwindows Bookreader, you “turn” its “pages” by clicking on the “Next Topic” and “Previous Topic” buttons. This is the fastest and most efficient way to maneuver about a book. Whenever the size of a topic exceeds the size of the topic window, you must manipulate the topic window's scroll bar to view the entire topic. This can be slow and frustrating.

By default, each `<CHAPTER>`, `<HEAD1>`, `<APPENDIX>`, `<PART>`, `<PREFACE>`, `<PREFACE_SECTION>`, `<TITLE_PAGE>`, `<COPYRIGHT_PAGE>`, and template page ends the previous topic and begins a new one. This level of granularity is almost always sufficient for most books. To establish a

finer topic granularity, place one of the following after the <PROFILE> tag:

```
<SET_ONLINE_TOPIC>(HEAD2)  
<SET_ONLINE_TOPIC>(HEAD3)
```

To establish a larger topic granularity, use:

```
<SET_ONLINE_TOPIC>(CHAPTER)
```

Notes: You can place a <SET_ONLINE_TOPIC> tag anywhere in your book to switch topic granularity as seems fit. For these purposes, you can use any of the keywords illustrated above plus <SET_ONLINE_TOPIC>(HEAD1), which restores the default.

<SET_ONLINE_TOPIC> takes a single argument.

2.8.2 Coding the Front Matter

Examine the book's front matter, as follows. If time permits, perform the recommended tasks as well as the required ones.

Required

- 1 Place the <CONTENTS_FILE> tag immediately before the <PREFACE> tag. If you must use the file-spec argument, use uppercase characters for the file specification. Otherwise, you may receive the device converter error message:

```
%DVC-E-NOCONTENTS, no contents file found
```

- 2 Make sure that the front matter file contains a <TITLE> tag. If you omit the <TITLE> tag, the DECW\$BOOKSHELF file produced by the online doctype uses the file name (without the extension) as the book's title.
- 3 Make sure that the <TITLE_PAGE> tag is the first tag in the book that generates text.

Any text that appears before the <TITLE> tag—or appears in an included file pulled in (by either an <INCLUDE> tag or the DOCUMENT command line qualifier /INCLUDE) before the <TITLE> tag—will cause an online bookbuild to fail with a cheery message:

```
PAGE COORDINATION LOST:TeXpage =1, ChunkID=2;ABORT!  
%DVC-E-BOOKABORT, aborting run -- book not created  
-DVC-I-input file is:
```

- 4 Examine the "Conventions" section of the Preface. If it describes the appearance of interactive examples, be sure to distinguish between their appearance in hardcopy and online. For instance:

In examples, system output (what the system displays) is shown in black. User input (what you enter) is shown in red.

should be changed to:

In examples, system output (what the system displays) is shown in black. User input (what you enter) is shown in red.
In online versions, user input is shown in bold.

2.8 Coding the Manual

Also Recommended

- 1 Convert any hard-coded references to chapters or sections of the book that may appear in the Preface so that they use <REFERENCE> tags. For instance:

Chapter 3 describes how to bootstrap your Maine Hunting Shoe.
<P>

You'll find exciting information about beets in Chapter 4.

should become:

<REFERENCE>(hunting_shoe_chap) describes how to bootstrap your Maine Hunting Shoe.

<P>

You'll find exciting information about beets in

<REFERENCE>(red_tuber_chap).

- 2 If your front matter includes a "New and Changed Features" section, code it as follows:

<PREFACE_SECTION>(New and Changed Features)

This coding causes the DECwindows Bookreader to generate a table of contents entry for the "New and Changed Features" page by which a reader can instantly access new features information. The <PREFACE_SECTION> tag also begins a new online topic.

Without a table of contents entry, a new and changed features entry would likely be lost to the reader of an online book. (The code <HEAD1>(New and Changed Features\ncf_sec) is common, but does not generate a table of contents entry.)

- 3 Make sure that all head tags within the Preface contain a symbol-name argument. For instance:

<HEAD1>(Intended Audience\intend_aud_sec)

Contrary to its requirements for heads in all other portions of a book, the online software does not require symbol-names for heads in a Preface. Regardless of this fact, you should place symbol-names in these heads, for consistency's sake and for insurance.

In yet another of those rare, challenging aspects of VAX DOCUMENT, head tags within the context of a Preface behave differently from head tags situated elsewhere in a book. VAX DOCUMENT does not generate table of contents entries for these heads, and (when building for hard copy) it is puzzled by any <REFERENCE> tag that is unfortunate enough to allude to their symbolic names. When building for online, this latter event generates an authentic device converter message.

VOILA ERROR--The following symbols are undefined:

pgid = 8, offset= 9085, symbol = 'INTEND_AUD_SEC'
\$DVC-E-OUTPUTFAIL, error writing to the output file

2.8.3 Coding Each Chapter, Appendix, and Part

Examine each chapter, appendix, and part, as follows. If time permits, perform the recommended tasks as well as the required ones.

Required

1 Ensure that any use of the following tags contains a symbol-name argument:

- <CHAPTER>, <APPENDIX>, or <PART>
- All head tags
- Tags introducing formal figures, tables, and examples

If you omit a symbol name in one of these contexts, the tag translator protests:

```
*TAG-E-LCL_MSG27, at tag <HEAD1> on line 105 in file  
1111XYZ.SDML
```

Symbol names are required in all header, figure, table, and example tags.

If you ignore this message, you will obtain an error outburst during device conversion:

```
VOILA ERROR--The following symbols are undefined:
```

```
pgid= 9, offset = 4612, symbol = 'DUMPSTYLE_SEC'  
pgid= 9, offset = 4570, symbol = 'INDUCING_FAILURE_SEC'  
pgid= 9, offset = 4528, symbol = 'SDA_SYMBOL_TAB_SEC'  
pgid= 9, offset = 4486, symbol = 'SDA_CONTEXT_SEC'
```

Note that this error resulted from a single undefined symbol, not four.

2 Make sure that no <CHAPTER>, <APPENDIX>, or <PART> or head tag—or tag introducing a formal figure, table or example—is coded in such a way that the line breaks after the backslash (\). For instance:

```
<HEAD1>(System Management and SDA\  
sda_sec)
```

produces

```
*TEX-RUNAWAY, Runaway 'argument'  
*TEX-SHOWTOKEN, '{'  
*TEX-W-EOP, Paragraph ended before the following completed:  
-TEX-W-DURING, Error occurred during a '\topichunk'  
-TEX-W-MISSINGRBRACE, Possible missing '}'  
*TEX-I-SHOWCONTEXT, '  
*TEX-I-LINE, Error occurred on or around line number: 120
```

3 Eliminate duplicate symbol names; they confuse the DECwindows Bookreader, and cause the following tag translator error:

```
*TAG-E-DUPSYMBOL, at tag <SYMBOL_TABLE_ENTRY> on line 115 in file  
1111XYZ.SDML
```

The symbol SDA_SEC is being defined twice.
The earlier definition is replaced by the new definition

Online Writing Guidelines

2.8 Coding the Manual

- 4 Replace all <FIGURE_SPACE> tags with a series of four <FIGURE_FILE> tags. For all art generated by Graphic Services, use the following format:¹

```
<FIGURE_FILE>(PS\ZK-xxxx.PS\nn)  
<FIGURE_FILE>(LN03\ZK-xxxx.SIX\nn)  
<FIGURE_FILE>(LINE_PRINTER\SPACE\nn)  
<FIGURE_FILE>(BOOKREADER\ZK-xxxx.DECW$BOOKFIG\nn)
```

ZK-xxxx represents the art control number portion of the file name; note that, although the file name is derived by the art number, the file name always includes a 4-digit number. For instance, if a figure has an art number of ZK-793, its online figure file name would be ZK-0793.DECW\$BOOKFIG. (For newer art, there may be a letter appended to this 4-digit number: for example, ZK-0793a.DECW\$BOOKFIG.)

nn represents the vertical pica size of the figure—the size depends on the art file type and will not be the same in all <FIGURE_FILE> tags for a given figure. Graphic Services supplies the correct figure file names and vertical pica sizes for all DECW\$BOOKFIG (the GE_PI column) and PS (the HC_PI column) art to you through your editor. To obtain LN03 pica sizes, multiply the PostScript measurements by 1.08.

Retain the original <FIGURE_SPACE> value in the LINE rendition of the <FIGURE_FILE> tag, but do not use the FULL_PAGE keyword. The text formatter will state:

```
*TEX-I-INFO, Figure is too large for a single page -- on page [42]  
*TEX-W-BADGLUE, Infinite glue. Attempting to recover  
*TEX-I-SHOWCONTEXT, '...gegoal =\MACdimenA \fi \par '  
*TEX_I-LINE, Error occurred at or around line number: 1821
```

For all screen image art that you have generated yourself using the Screen Capture and Image Manipulation Program (UTOX), use the following format:

```
<FIGURE_FILE>(PS\LPNnnnn.SDML-PS\nn)  
<FIGURE_FILE>(LN03\LPNnnnn.SDML-SIXEL\nn)  
<FIGURE_FILE>(LINE_PRINTER\SPACE\nn)  
<FIGURE_FILE>(BOOKREADER\LPNnnnn.SDML-BIN\nn)
```

The UTOX file name must begin with the 4-digit LPN of the book in which the UTOX art appears. Unlike art originated by Graphic Services and stored in DONVAN::ARTOUT, UTOX art is created and maintained by the writer and stored in a book's CMS library or in the build directory, if there is no CMS library. nnnn represents the name of the figure; it can be longer than four characters.

Note: Any UTOX art that has been annotated and modified by Graphic Services uses the same file naming convention as other art generated within Graphic Services: that is, the file

¹ Note that, in the VMS documentation group, Graphic Services copies all figure files (DECW\$BOOKFIG, SIX, and PS) from DONVAN::ARTOUT places them in CMS libraries on STAR. The logical ARTLIB is a search list pointing to CMS reference copy directories that contain usable online art. VMS writers are required to use ARTLIB: as a directory specification in each figure file name. GS operators define ARTLIB: locally to point to DONVAN::ARTOUT.

name begins with the art control number. Annotated UTOX art is *not* stored in a book's CMS library.

If you have a wide figure, specify the WIDE keyword in *both* the <FIGURE_ATTRIBUTES> tag and the <FIGURE_FILE> tag. For example:

```
<FIGURE>(An Interesting Figure\a_figure)
<FIGURE_ATTRIBUTES>(WIDE)
<FIGURE_FILE>(PS\ARTLIB:ZK-xxxx.PS\ nh\ WIDE)
<FIGURE_FILE>(LN03\ARTLIB:ZK-xxxx.SIX\ nn\ WIDE)
<FIGURE_FILE>(LINE_PRINTER\SPACE\ nn\ WIDE)
<FIGURE_FILE>(BOOKREADER\ARTLIB:ZK-xxxx.DECW$BOOKFIG\ nn\ WIDE)
<ENDFIGURE>
```

The WIDE argument for wide figures affects the positioning of figures on the page for the hardcopy doctypes. Check the art control list for figures identified as WIDE.

By this stage in online cleanup, you will already have had your editor submit an art package for the book to Graphic Services. If the art is not ready, you can and should proceed with online cleanup. You can build and view a book without correct values for figure file name and vertical pica size. This will make it easier and quicker for you to build and view the book later, when the artwork is available.

When the artwork is ready, follow the instructions in Section 2.10.1.

Note: Perform this step for <ICON_FILE> and <MARGIN_ICON> tags as well as for <FIGURE_FILE> tags.

5 Check formal figures, tables, and examples.

Formal figures, tables, and examples have captions *and* symbol-names. The table of contents contains an entry for each formal figure, table, and example in a book. When displayed by the DECwindows Bookreader, formal figures, tables, and examples appear in a suitably-sized popup window (separate from the topic window).

Wherever there is a formal figure, table, or example, there *must* be a <REFERENCE> tag that uses its symbol-name. This is tricky. In hardcopy documents, it is easy to omit the <REFERENCE> tag, because the formal figure automatically appears in the text just about in the position you place it in the SDML code.

In online documents, formal figures, tables, and examples will **DISAPPEAR WITHOUT A TRACE!!!** if their symbol names do not appear in a <REFERENCE> tag. You will not be able to page through the online document sequentially and access the figures, tables, and examples; they will only be accessible through the table of contents. Section 2.12 offers some suggestions on how to trap this type of problem.

6 Check informal figures, tables, and examples. Informal figures, tables, and examples may have a caption, but they never have associated symbol-names.

2.8 Coding the Manual

For online processing, informal figures, tables, and examples can stay the way they are. Don't touch them, unless:

- The informal figure, table, or example is too wide (over 34 picas) for display in the DECwindows Bookreader topic window. (You would notice this while viewing the book, but you can make a good guess if you know the material in the book.) A wide informal figure, table, or example forces the reader of an online book to resize the topic window or use the horizontal scroll bar to view the entire figure, table, or example.
- The bookbuild aborts due to an 'TEX-E-NOROOM, Exceeded memory capacity' TeX error that you can trace to a section containing many long informal figures, tables, or examples.
- The bookbuild succeeds, but viewing the figure, table, or example with the DECwindows Bookreader is aesthetically displeasing.

You should first examine the figure, table, or example to see whether it deserves treatment as a formal figure, table, or example. If so, the process is fairly simple:

- Add a caption and a symbol-name to the <FIGURE> tag
- Add a sentence pointing to the figure, table, or example, using a <REFERENCE> tag that references the symbol-name

If the figure, table, or example is not worthy of formal treatment, you can force the DECwindows Bookreader to create a pop-up window for it by using the <ONLINE_POPUP> tag sequence. This process is also quite simple:

- Place an <ONLINE_POPUP>(nnn) tag immediately before the <FIGURE>, <TABLE>, <CODE_EXAMPLE>, <INTERACTIVE>, <DISPLAY>, <EXC>, or <EXI> tag. The <ONLINE_POPUP> tag takes a single argument, but the argument can contain more than one word. This argument identifies the contents of the DECwindows Bookreader hotspot, so it is worth being brief and to-the-point: "Figure," "Table," "Example," and "Example Callouts" are good argument values.
- Place an <ENDONLINE_POPUP> tag after the ending tag of the figure, table, or example. Note that it seems good to leave the <EXTEXT> portion of an <EXI> or <EXC> example out of the section bracketed by the online pop-up tags.

Do not enclose tags that generate heads within an online pop-up sequence. This include <EXAMPLE_SEQUENCE> and <DESCRIPTION> tags, as well as the normal head tags. Also, do not nest online pop-up sequences; you cannot place formal tables, figures, examples, and online pop-up sequences within an online pop-up sequence.

If you miscode an online pop-up sequence by omitting an <ENDONLINE_POPUP> tag or by nesting online pop-ups, you will get the following type of error:

VOILA ERROR--The following symbols are undefined:

```
pgid = 53, offset = 921, symbol = '_DECW_SEMIFORMAL_13'
```

Note that the online pop-up (semiformal) symbol names contain a sequence number. You can find the troublesome online pop-up sequence somewhat easily by using the DCL SEARCH command to search for the phrase "<online_popup>" in your files in the order in which they appear in the book. In the example above, the 13th online pop-up sequence found by the DCL SEARCH command is the culprit.

- 7 Make sure that index entries referring to information within a given section appear within that section and not before its head tag.

Also Recommended

- 1 Make sure that index entries are not coded within a formal figure, table, or example—or within any online pop-up sequence. If a reader clicks on an index entry resulting from this type of coding, the DECwindows Bookreader displays the pop-up window alone. Without additional context, such index entries are not useful to a reader.
- 2 If your book contains more than one section with the same name, you should be aware that identical index entries in each section may result in confusing pointers from the online index. In this situation, you should consider either:
 - Renaming the sections so that they all have unique names
 - Using subentries to qualify the index entries such that it is clear to the user how they differ
- 3 Make sure that each <CHAPTER>, <APPENDIX>, and <PART> tag is followed by some text. Otherwise, the DECwindows Bookreader displays only the title of the chapter, appendix, or part in the topic window. You may want to delete the first <HEAD1> tag in the chapter, appendix, or part; or you may decide to add an overview paragraph before the first <HEAD1>.
- 4 Certain coding conventions that produce fine hardcopy output do not work in a predictable way for online output. Investigate the following suspect practices:
 - Use of multiple, adjacent <P> tags to create space in a hardcopy document. This code results in unattractive online output. Remove the extra <P> tags.
 - Use of <P> tags before <TABLE>, <LIST>, <FIGURE>, and similar tags also produces strange and ugly online output. Remove the <P> tag.
 - Use of the <LINE> tag to force a line break based only on the appearance of a hardcopy book. Be sure that you want the line break in both the hardcopy and online versions of the book. If you need a line break only in the hardcopy book, use the tag <FINAL_CLEANUP>(LINE_BREAK).

Note: The <PAGE> and <FINAL_CLEANUP> tags are disabled for the online doctypes.

Online Writing Guidelines

2.8 Coding the Manual

- 5 Informal examples containing callouts and the accompanying callout list provide an excellent opportunity of using the `<ONLINE_POPUP>` tag in a creative way. The annotated example can appear within one online popup sequence, and the callout list can appear in another. This coding strategy allows the reader of the online manual to see both the example and the associated callouts on the screen at the same time.
- 6 The online software assumes that a `<FOOTREF>(n)` tag in text refers to the most recent occurrence of a `<FOOTNOTE>(n\...)` tag in text. If the online software gets confused (for instance, there is no previous `<FOOTNOTE>(n)` tag in text), the tag translator will alert you to this situation with:

```
†TAG-W-LCL_MSG26, at tag <FOOTREF> on line 32 in file
4556SDA.SDML
Possible problem with footnotes
```

- 7 You cannot use more than one `<FOOTREF>` tag in a header. If you do, the device converter exclaims:

```
VOILA ERROR--The following symbols are undefined:
pgid = 12, offset = 181, symbol = '_DECW_HEADFN_2_1_5'
```

In this case, the "2" is the footnote callout (`<FOOTREF>(2)`); "1" indicates the first header footnote in the book; and "5" is a number used internally by the online software.

You can, however, use multiple arguments to a single `<FOOTREF>` tag in a header. For instance:

```
<HEAD1>(Using Postscript<FOOTREF>(R\1) Printers)
<FOOTNOTE_TEXT>(R\Postscript<SPECIAL_CHAR>(register_symbol) is a
registered trademark of Adobe Systems Incorporated.)
<FOOTNOTE_TEXT>(1\For more information, see...)
```

However, the online software assumes that the `<FOOTNOTE_TEXT>` tags follow the head tag in the order in which they appear in the `<FOOTREF>` tag.

- 8 Make sure no `<REFERENCE>` tag uses the `\VALUE` qualifier needlessly.

The DECwindows Bookreader defines the contents of a hotspot (identified by the Bookreader by a rectangular outline) from information supplied in the `<REFERENCE>` tag. If you use `<REFERENCE>(SYMBOL_NAME)`, the hotspot includes the identifying reference (be it "Symbol," "Table," "Chapter," "Section," or whatever). If you use Section `<REFERENCE>(SYMBOL_NAME\VALUE)`, the word "Section" appears outside of the hotspot.

Search for the `\VALUE` qualifier in your source files. You should not change legitimate uses of the qualifier. For instance, the following code is correct and necessary:

```
Excessive discussion of the /OLFACTORY, /NOSTRILS, and /NASAL
qualifiers appears in Sections <REFERENCE>(nose_sec\value) and
<REFERENCE>(more_nose_sec\value), and <REFERENCE>(snore_nose_sec\value).
```

However, if the `\VALUE` qualifier is unneeded, remove both it *and* the identifying reference word.

2.8.4 Coding Glossaries and Messages

If your book contains glossary entries (identified by the <GTERM> tag) and /or messages (identified by the <MSG> or <MSGS> tag), perform the following required tasks.

Required

- 1 Make sure that the <GLOSSARY> tag has a symbol-name argument. Note that the symbol-name is the *second* argument. For instance, you may use:

<GLOSSARY>

If you omit the symbol-name in a <GLOSSARY> tag, VAX DOCUMENT will generate the following error for *each* entry in the glossary:

```
%TAG-E-LCL_MSG27, at tag <HEAD1> on line 105 in file  
1111GLS.SDML
```

Symbol names are required in all header, figure, table, and example tags.

- 2 If the manual uses the <SET_ONLINE_TOPIC>(master) (as discussed in Section 2.8.1), examine each <GTERM>, <MSG>, or <MSGS> tag for embedded tags.

An embedded tag looks like this:

<GTERM>(<QUOTE>(lookaside) list))

or this:

<MSG>(Line too long by <EMPHASIS>(nnnn) picas)

If you discover an embedded tag, use the <DELAYED> tag to delay tag translation. (The delay helps the online software produce table of contents entries for glossary terms and messages.)

Thus, you would render the above entries as follows:

<GTERM>(<delayed>(<QUOTE>(lookaside)) list))

or

<MSG>(Line too long by <delayed>(<EMPHASIS>(nnnn)) picas)

2.9 Using Tools to Facilitate Online Builds

There are a few tools available over the network that check DOCUMENT source code, flag coding practices that may pose problems for the online software, and—in certain instances—actually change the source code so that it adheres to some of the requirements of the online software.

You can choose to perform all of the online cleanup for a book manually, or you can have one of those programs perform some of it for you. If you take the latter course, you should be aware that none of these programs is officially supported or maintained, and none is designed to take care of all potentially problematic coding practices. It is quite possible that your book is not complex enough to warrant using the tool, or is so complex that the tool will break.

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2.9 Using Tools to Facilitate Online Builds

If you do choose to use one of these programs, make absolutely sure that you have saved a copy of your DOCUMENT source files somewhere before unleashing the program. You may need to back out of some of the changes it makes, or you may need to restore a portion of the old file. (This is common sense, not a criticism of the quality of the programs or the diligence of their creators in testing their effects.)

Notes conference CLOSET::ONLINE_BOOKBUILDING mentions these tools in Topics 16 and 17.

Note: To reiterate, neither of these programs is supported. The descriptions which follow accurately reflect the operation of the latest posted versions. As of this writing, neither version of ONLINE_CLEANUP.COM have been verified to work with Version 2.0 of the DECwindows bookreader.

2.9.1 ONLINE_CLEANUP.COM

ONLINE_CLEANUP.COM (Topic 16) is a command procedure that creates and executes a BLISS image that performs the following tasks:

- 1 Automatically generates a symbol-name argument for those <HEADx> tags that do not already have a symbol-name argument.
- 2 Automatically replaces all <FIGURE_SPACE>(nn) tags with a set of four <FIGURE_FILE> tags of the following form:

```
<FIGURE_FILE>(PS\ZK-<fig.PS\nn)
<FIGURE_FILE>(LN03\ZK-<fig.SIX\nn)
<FIGURE_FILE>(LINE\SPACE\nn)
<FIGURE_FILE>(Bookreader\ZK-<fig.DECW$BOOKFIG\nn)
```
- 3 Produces a file, named ONLINE-CLEANUP.LOG, that lists places where an inappropriately-placed <P> tag may produce unattractive Bookreader output and points to other potentially troublesome code.

Use of ONLINE_CLEANUP.COM is subject to the following restrictions:

- 1 VAX BLISS must be installed on the system on which it executes.
- 2 It requires a profile name. In other words, you can only use it to convert an SDML file when that file is listed within a profile as an element.
- 3 All <P> tags in the source files upon which it operates must be at the beginning of a line.
- 4 All tags and their arguments must reside on the same line. This restriction also applies to <HEADx> tags.
- 5 ONLINE_CLEANUP.COM will process all files listed in the profile, even those listed within a comment.
- 6 If one or more <FIGURE_FILE> tags already exist within a figure, ONLINE_CLEANUP.COM does not check to see whether all four <FIGURE_FILE> tags are there.

ONLINE_CLEANUP.COM is available at the following location:

```
BULOVA::DOCD$: [ONLINE]ONLINE_CLEANUP.COM
```

To run it, use the following DCL command line syntax:

```
$ @ONLINE_CLEANUP full-profile-spec source-file-directory
```

2.9.2 Alternate ONLINE_CLEANUP.COM

The alternate ONLINE_CLEANUP.COM (Topic 17) is strictly a DCL command procedure, derived from the original version of ONLINE_CLEANUP.COM, and performs many of the same tasks, and is subject to many of the same restrictions. It creates symbol-name arguments for section heads, but replaces <FIGURE_SPACE>(n) tags with a single <FIGURE_FILE> tag, of the form:

```
<figure_file>(Bookreader\xxxxxx\n)
```

Unlike the original version, it can recognize <P> tags at the end of a line—a common occurrence in files that were originally translated from DSR with the DSR-to-SDML converter.

It reports various potentially-troublesome uses of the <P> tag in a file named ONLINE_CLEANUP_profile_filename.DAT. Because it is a DCL program, it can be very slow.

The alternate ONLINE_CLEANUP.COM is available at the following location:

```
REORG::USER2$: [MURRAY]ONLINE_CLEANUP.COM
```

To run it, use the following DCL command line syntax:

```
$ @ONLINE_CLEANUP profile-name.SDML directory-name
```

You can also submit the procedure as a batch job.

2.9.3 The Book Verification Utility

After you build a book for online, you can use the Book Verification Utility to check figures, popups, topics, cross-references, the Table of Contents, and the index. After analyzing the book, the utility creates a log file with the extension .ANALYSIS.

The utility can be copied from CDROM::BVU010.A and installed with VMSINSTAL. If you are on a cluster, your system manager will have to do install it for you to replace the DCL tables.

Once the utility is installed, you can use the BOOKVERIFY command to run the utility, as follows:

- To send all output to the terminal and create a summary .ANALYSIS file:

```
$ BOOKVERIFY filename.DECW$BOOK [/OUTPUT-output-file]
```

The /OUTPUT qualifier changes the name of the .ANALYSIS file.

2.9 Using Tools to Facilitate Online Builds

- To send output to the terminal only:

```
$ BOOKVERIFY/NOOUTPUT filename.DECW$BOOK
```

- To send all the output to a file.

```
$ BOOKVERIFY/FULL filename.DECW$BOOK /OUTPUT=output-file
```

The CLOSET::ONLINE_BOOKBUILDING conference contains announcements and information on the Book Verification Utility.

Note: As of this writing, the Book Verification Utility does not work with books built for Version 2.0 of the DECwindows bookreader.

2.10 Building an Online Book

This section describes the steps involved in building an online book, including:

- Copying art files to the build directory
- Building the DECW\$BOOK file
- Building the DECW\$BOOKSHELF file
- Diagnosing online processing errors

2.10.1 Copying Art Files to the Build Directory

When the artists complete work on the art package, they will make the art available at DONVAN::ARTOUT and inform the editor. The editor will relay to you the file names and vertical pica sizes of all figure files in the book. It is then your responsibility to do the following:

- Insert the correct figure name and vertical pica size in every <FIGURE_FILE>, <ICON_FILE>, and <MARGIN_ICON> tag in your book.
- Copy the appropriate art files from DONVAN::ARTOUT to your build directory so that they will be available for DOCUMENT during the online bookbuild.²
- Build the book for an online doctype, as discussed in Section 2.10.2.

You can (and should) build a converted book, even though all art files may not be available. If it cannot find a figure file, VAX DOCUMENT generates the following warning and continues:

```
%DVC-W-SPECIALERROR, error in \special
      voila: plotfile ZK-1922.DECW$BOOKFIG
-DVC-W-FIGFILEOPN, cannot open figure file
-DVC-I-INPUTFILE, input file is
      WORK6:[ROTTEN]4556PRO.DVI_BOOKREADER
-DVC-I-ONPAGE, on page [46]
```

² Note that, in the VMS documentation group, Graphic Services copies all figure files (DECW\$BOOKFIG, SIX, and PS) from DONVAN::ARTOUT places them in local CMS libraries on STAR. The logical ARTLIB is a search list pointing to CMS reference copy directories that contain usable online art. VMS writers are required to use ARTLIB: as a directory specification in each figure file name. GS operators define ARTLIB: locally to point to DONVAN::ARTOUT.

This error is easily rectified by copying the figure, once it is available, to the build directory.

In certain circumstances, you may obtain the following error:

```
%DVC-W-SPECIALERROR, error in \special  
voila: plotfile ZK-1933.DECW$BOOKFIG  
-DVC-W-FIGFILOPN, cannot find figure image in figure file  
-DVC-I-INPUTFILE, input file is  
WORK6:[ROTTEN]4556PRO.DVI_BOOKREADER  
-DVC-I-ONPAGE, on page [46]
```

This error indicates that the referenced DECW\$BOOKFIG file does not contain a usable figure. You should notify Graphic Services of any figure file that causes this problem.

2.10.2 Building the DECW\$BOOK File

To initiate an online bookbuild, use the following command:

```
$ DOCUMENT profile_name online-doctype BOOKREADER /CONTENTS/INDEX/LIST/MAP/KEEP
```

The **online-doctype** can be either **ONLINE.REFERENCE** or **ONLINE.HANDBOOK**, as determined for your document.

The **/CONTENTS** and **/INDEX** qualifiers are required and correspond to **<CONTENTS_FILE>** and **<INDEX_FILE>** tags in the book, as discussed in Sections 2.8.1 and 2.8.2, respectively.

The **/LIST** and **/KEEP** qualifiers ensure that interim files and a list file are retained after **DOCUMENT** processing, just in case you need to report an error.

The **/MAP** qualifier is required of writers in the VMS documentation group. **DOCUMENT .MAP_LIS** files from a successful online bookbuild must be checked into the CMS libraries of all VMS books.³

Note: You may need to use **/SYMBOLS-xxx_BOOKNAMES** during your *hardcopy* bookbuilds. **VMS_BOOKNAMES**, **LP_BOOKNAMES**, and the other booknames files contain a line that includes **CUP\$ONLINE_DEFS.GDX**, a file that allows the hardcopy doctypes to recognize the online-specific tags and keywords. If this file is not included in a booknames file available to your group, the qualifier phrase **/SYMBOLS-DOC\$LOCAL_FORMATS:CUP\$ONLINE_DEFS.GDX** should be used.

A successful bookbuild for an online doctype and **BOOKREADER** destination is one that has no **-E-**, **-W-**, or **-F-** errors (you can search the **LOG** file for these characters). If all converted art files are not yet available, you can proceed with viewing the book, even though there may be device converter errors (**DVC-W-SPECIALERROR**) that signify one or more missing figure files.

The products of a successful online bookbuild are the output file (**.DECW\$BOOK**) and a DECwindows Bookreader bookshelf entry file (**.DECW\$BOOKSHELF**).

³ Automatic document set building, as used in the VMS documentation group, requires the **MAP_LIS** file.

Online Writing Guidelines

2.10 Building an Online Book

2.10.3 Building the DECW\$BOOKSHELF File

The ONLINE.SHELF doctype allows users to define the bookshelf structure for a document set in a structured file by using the following DOCUMENT tags:

- `<SHELF_CREATE>(shelf-symbol-name\file-name)` and `<ENDSHELF_CREATE>`

Creates a new shelf (DECW\$BOOKSHELF) file.

- `<SHELF_REF>(book-symbol-name\file-name)`

Specifies an existing shelf file in a library or in another shelf file.

- `<BOOK_REF>(book-symbol-name\file-name)`

Specifies books in a library or in shelf files.

For further explanation of the proper use of these tags, see the description of the ONLINE.SHELF doctype.

For more information, see *Coding Documentation Source Files for the DECwindows Bookreader*.

2.10.4 Licensing the DECW\$BOOK file

Please refer to *Coding Documentation Source Files for the DECwindows Bookreader*.

2.10.5 Diagnosing Online Processing Errors

This section lists messages you may encounter in the course of building your book with an online doctype. Listed messages appear in three categories:

- Tag translator warnings and errors (prefixed by %TAG).
- Text processing warnings and errors (prefixed by %TEX).
- Device converter warnings and errors (prefixed by %DVC). VOILA ERRORS belong to this category.

If you come across processing errors you cannot resolve, seek the assistance of a systems analyst.

Tag Translator Errors

■ *TAG-E-DUPSYMBOL, at tag <SYMBOL_TABLE_ENTRY> on line 115 in file 1111XYZ.SDML
The symbol SDA_SEC is being defined twice.
The earlier definition is replaced by the new definition

You have used the same symbol name in more than one <HEADx> tag. This will confuse the DECwindows Bookreader; you should always use unique symbol names.

‡TAG-W-LCL_MSG26, at tag `<FOOTREF>` on line 32 in file
4556SDA.SDML
Possible problem with footnotes

You've used a `<FOOTREF>` tag that references a footnote number for which there is no corresponding `<FOOTNOTE>` tag.

‡TAG-E-LCL_MSG27, at tag `<HEAD1>` on line 105 in file
1111XYZ.SDML
Symbol names are required in all header, figure, table, and example tags.

Perhaps you have omitted the symbol name argument to the `<HEAD1>` tag at line 105. You would be given a similar error for neglecting to put a symbol name in a `<CHAPTER>`, `<HEAD2>`, or `<PART>` tag, or other header tag.

‡TAG-E-TAG_FAILS, The tag translator has detected a fatal error
-TAG-F-EOFARGLIST, End of file encountered while searching for closing parenthesis. See argument list of tag `<TAG_DIAGNOSTIC>` on line 14 of file 4556SDA.SDML

Perhaps you have misspelled a keyword (for instance, `HEAD1`, `CHAPTER`) to the `<SET_ONLINE_TOPIC>` tag at line 14.

‡TAG-W-TAGNOTDEF, at text on line 6 in file
4490GLS.SDML
Tag `<DECW_TOCTERM>` is undefined

You are using `<SET_ONLINE_TOPIC>`(*master*) and the device converter has come across a `<GTERM>`, `<MSG>`, or `<MSGS>` tag that contains an embedded tag. You must put the embedded tag *and* its arguments into a `<DELAYED>` tag.

Text Processor Errors

‡TEX-I-INFO, Figure is too large for a single page -- on page [42]
‡TEX-W-BADGLUE, Infinite glue. Attempting to recover
‡TEX-I-SHOWCONTEXT, '...gegoal =\MACdimenA \fi \par '
‡TEX_I-LINE, Error occurred at or around line number: 1821

A `<FIGURE_FILE>` tag specifies a vertical pica size that is too long for the online software. Check for the `FULL_PAGE` keyword in a `<FIGURE_FILE>` tag; it is illegal.

Search the `TEX` file around line 1821 to obtain some context for the error in the `SDML` file.

‡TEX-E-NOROOM, Exceeded memory capacity:
-TEX-I-MEMORYSIZE, Main memory size = 131072 words
‡TEX-I-LINE, Error occurred on or around line number: 3442
‡TEX-I-SHOWCONTEXT, ' CLRW UCB\ \$W\ _D '
‡TEX-I-SHOWCONTEXT, ' L\ _FLAGS(R5) ; Clear adapter mapping bit '
‡TEX-I-FILENAME, 'WORK6:[BUTTLAR.TRASH]4556SDA.TEX;30'

This error usually results from an extremely long code example, figure, or table, or a series of long code examples, figures, and tables in a single section or chapter. The solution is threefold:

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- If possible, make long examples, figures, and tables formal, or place them within an online popup tag sequence.
- Make sure that long examples contain a sufficient number of and proper placement of <VALID_BREAK> tags.
- Make sure that long and complex tables contain a sufficient number of and proper placement of <VALID_TABLE_ROW_BREAK> tags.

3
%TEX-W-RUNAWAY, Runaway 'argument'
%TEX-SHOWTOKEN, '{'
%TEX-W-EOP, Paragraph ended before the following completed:
-TEX-W-DURING, Error occurred during a '\topichunk'
-TEX-W-MISSINGRBRACE, Possible missing ')'
%TEX-I-SHOWCONTEXT, ' \par '
%TEX-I-LINE, Error occurred on or around line number: 120

Possibly a symbol-name has been separated from the header tag for which it is defined. For instance, the following code generates this error:

```
<HEAD1>(System Management and SDA\  
sda_sec)
```

Search the TEX file around line 120 to obtain some context for the error in the SDML file.

4
%TEX-W-RUNAWAY, Runaway 'definition'
%TEX-I-SHOWTOKEN, '->Inducing a System Failure][][O][O][O][][]'
%TEX-E-NOROOM, Exceeded memory capacity:
-TEX-I-MEMORYSIZE, Main memory size = 131072 words
%TEX-I-SHOWCONTEXT, '...lure][][O][O][O][][]'
%TEX-I-SHOWCONTEXT, ' : :8][O][O][4][16][2][O][O][: :'

This error usually results from an extremely long code example, or a series of long code examples, figures, and tables in a single section or chapter. The solution is twofold:

- If possible, make long examples, figures, and tables formal, or place them within an online popup tag sequence.
- Make sure that long examples contain <VALID_BREAK> tags.

Device Converter Errors

5
%DVC-W-SPECIALERROR, error in \special
voila: plotfile EK-1922.DECW\$BOOKFIG
-DVC-W-FIGFILOPN, cannot open figure file
-DVC-I-INPUTFILE, input file is
WORK6:[ROTTEN]4556PRO.DVI_BOOKREADER
-DVC-I-ONPAGE, on page [46]

The specified figure file does not exist. Usually this means that the file has yet to be copied from DONVAN::ARTOUT.. Sometimes it means that the figure file name is incorrect.

```

%DVC-W-SPECIALERROR, error in \special
      voila: plotfile ZK-1933.DECW$BOOKFIG
-DVC-W-FIGFILOPN, cannot find figure image in figure file
-DVC-I-INPUTFILE, input file is
      WORK6:[ROTTEN]4556PRO.DVI_BOOKREADER
-DVC-I-ONPAGE, on page [46]

```

The specified figure file does not contain a properly-encoded figure.
Contact Graphic Services.

```

PAGE COORDINATION LOST:TeXpage =1, ChunkID=2;ABORT!
%DVC-E-BOOKABORT, aborting run -- book not created
-DVC-I-input file is:

```

This error is a symptom of one of the following DOCUMENT coding errors:

- Your front matter file contains text prior to the <TITLE> tag.
- You have used an <INCLUDE> tag that results in text being inserted before the <TITLE> tag (or you have used the /INCLUDE qualifier to the DOCUMENT command line, with the same result).
- You are using <SET_ONLINE_TOPIC>(master) and the device converter has come across a <GTERM>, <MSG>, or <MSG> tag that contains an embedded tag. You must put the embedded tag *and* its arguments into a <DELAYED> tag.

```

VOILA ERROR--The following symbols are undefined:
      pgid= 9, offset = 4612, symbol = 'DUMPSTYLE_SEC'
      pgid= 9, offset = 4570, symbol = 'INDUCING_FAILURE_SEC'
      pgid= 9, offset = 4528, symbol = 'SDA_SYMBOL_TAB_SEC'
      pgid= 9, offset = 4486, symbol = 'SDA_CONTEXT_SEC'
%DVC-E-OUTPUTFAIL, error writing to output file

```

You have forgotten to place a symbol-name argument in a <CHAPTER> or <APPENDIX> tag, <HEADx> tag, formal figures, tables, or example, or <PART> tag. Check the LOG file for the tag translation error:

```

%TAG-E-LCL_MSG27, at tag <HEAD1> on line 105 in file
1111XYZ.SDML
Symbol names are required in all header, figure, table, and example tags.

```

```

VOILA ERROR--The following symbols are undefined:
      pgid = 8, offset= 9085, symbol = 'INTEND_AUD_SEC'
%DVC-E-OUTPUTFAIL, error writing to the output file

```

In a <REFERENCE> tag, you have placed a symbol-name that is not used by the online DOCUMENT software. This particular error can happen if you reference a symbol-name defined in a head tag within a Preface.

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6 VOILA ERROR--The following symbols are undefined:
pgid = 10, offset = 1549, symbol = '-'
%DVC-E-OUTPUTFAIL, error writing to output file

Check earlier in the LOG file for a tag translator error. This particular error resulted from the continuation processing after the tag translator error:

```
%TAG-W-LCL_MSG26, at tag <FOOTREF> on line 32 in file
4556SDA.SDML
Possible problem with footnotes
```

7 VOILA ERROR--The following symbols are undefined:
pgid = 12, offset = 181, symbol = '_DECW_FOOTNOTE_3_1_5'
%DVC-E-OUTPUTFAIL, error writing to output file

You have miscoded a footnote in text (outside of a header tag).

Break down the symbol name: DECW_FOOTNOTE_X_N1_N2:

- X is the character that appears in the <FOOTNOTE> or <FOOTREF>.
- N1 is the sequence number of the text footnote in the book; for instance, '7' would indicate the seventh text footnote in the book. (Use the DCL search command to help locate the N1st footnote.)
- N2 is a numeric indicator of the element of text (as used internally by VAX DOCUMENT).

8 VOILA ERROR--The following symbols are undefined:
pgid = 12, offset = 181, symbol = '_DECW_HEADFN_2_1_5'
%DVC-E-OUTPUTFAIL, error writing to output file

You have a miscoded footnote inside a header tag. This usually occurs when there is more than one <FOOTREF> tag in a single header.

Break down the symbol name: DECW_HEADFN_X_N1_N2:

- X is the character that appears in the <FOOTNOTE> or <FOOTREF>.
- N1 is the sequence number of the header footnote in the book; for instance, '7' would indicate the seventh header footnote in the book. (Use the DCL search command to help locate the N1st footnote.)
- N2 is a numeric indicator of the element of text (as used internally by VAX DOCUMENT).

9 VOILA ERROR--The following symbols are undefined:
pgid = 53, offset = 921, symbol = '_DECW_SEMIFORMAL_13'
%DVC-E-OUTPUTFAIL, error writing to output file

You have miscoded an online popup tag sequence. Look for:

- A missing <ENDONLINE_POPUP> tag.
- An online popup tag sequence within another online popup tag sequence or within a formal figure, table, or example.

- A formal figure, table, or example within an online popup tag sequence.

Note that the DECW_SEMIFORMAL symbol errors are identified by a sequence number that indicates the place of the errant online popup within the online book. You can use the DCL SEARCH command (searching for "<online_popup") to expedite finding the problem. As you search each source file in the correct sequence, the *n*th online popup will likely be the cause of the DECW_SEMIFORMAL_*n* error.

2.11 Preparing to View an Online Book

Even though you have successfully built your book, you cannot automatically assume that you can successfully view it in its entirety online. As you would a hardcopy book draft, you must check the online book for missing or misformatted information, display problems, and other flaws. To check an online book, you need access to a workstation running DECwindows.

You must also run the DECwindows Bookreader. It is perfectly sufficient to run the Bookreader on the workstation where you will be displaying the online books. However, if you are fortunate enough to have an account on a larger VAX or VAXcluster that is running DECwindows, you can run the DECwindows Bookreader remotely on the larger machine. (The Bookreader performance is immeasurably more impressive when run on a large memory machine.)

There are four tasks you must perform on the system from which you will be running the Bookreader to set up the Bookreader environment. They are as follows:

- 1 Set up an online review directory. Simply use the DCL CREATE /DIRECTORY command to create a subdirectory in which you can store the file LIBRARY.DECW\$BOOKSHELF and your DECW\$BOOK files. For example:

```
$ CREATE/DIR [.ONLINE_BOOKS]
```

- 2 Define the logical name DECW\$BOOK to point to your online review directory. For example:

```
$ DEFINE DECW$BOOK WORK1$:[DRENCH.ONLINE_BOOKS]
```

It may be worthwhile to include this line in your LOGIN.COM procedure.

- 3 Create the file LIBRARY.DECW\$BOOKSHELF in your online review directory. Use an editor, or issue commands such as the following:

```
$ SET DEFAULT WORK1$:[DRENCH.ONLINE_BOOKS]  
$ CREATE LIBRARY.DECW$BOOKSHELF
```

```
CTRL/Z
```

Online Writing Guidelines

2.11 Preparing to View an Online Book

Once you have set up the Bookreader environment, you can move to the online review directory the files of the online books you want to view. Perform the following steps:

- 1 Copy the DECW\$BOOK and DECW\$BOOKSHELF files produced by the online bookbuild to the online review directory.
- 2 Check the text file LIBRARY.DECW\$BOOKSHELF file to see whether there is already an entry for the book you have built.
 - If there is already an entry, proceed with step 3.
 - If there is not already an entry, append the book's DECW\$BOOKSHELF file to LIBRARY.DECW\$BOOKSHELF. Use the command:

```
$ APPEND xxxPRO.DECW$BOOKSHELF LIBRARY.DECW$BOOKSHELF
```

- 3 Run the DECwindows Bookreader.

2.11.1 Running the DECwindows Bookreader Remotely

As stated previously, DECwindows Bookreader performance improves greatly when it is run on a large memory system. If you have an account on a large memory system, you can run the Bookreader on that system, and direct its output to your workstation screen. The process by which you can do so varies, depending upon the setup and rules governing the use of the large system. Consult the system manager of the large system for the best means of running remote DECwindows processes on it.

The following is the general procedure for running the Bookreader remotely.

- Allow your large system account access to your workstation. From the DECwindows Session Manager on your workstation node, select the "Security" option of the "Customize" pull-down menu. Add various forms of your node name::username, such as HELENA::DRENCH and DIMOND::DRENCH. You cannot use a cluster alias; you use the wildcard *::username at your own risk, especially if your name is SMITH.
- Use the following command procedure, or use something similar:

```
$! X$BOOKREADER.COM
$ BOOKLOG_TEMP = F$TRNLNM("DECW$BOOK", "LNM$PROCESS")
$ DEFINE DECW$BOOK WORK1$: [DRENCH.ONLINE_BOOKS]
$ IF P1 .EQS. ""
$ THEN
$     SET DISPLAY/CREATE/NODE=MYNODE:: !Use your nodename here
$     SET PROC/NAME="BR_on_MYNODE"     !Here too
$ ELSE
$     SET DISPLAY/CREATE/NODE='p1'
$     SET DISPLAY/CREATE/NODE="BR_on_'p1'"
$ ENDIF
$ MCR DECW$BOOKREADER
$ DEFINE DECW$BOOK 'BOOKLOG_TEMP'
```

Online Writing Guidelines

2.11 Preparing to View an Online Book

- Define a symbol in your LOGIN.COM that you can later use to invoke the bookreader, such as:

```
$ BOOKREAD ::= @X$BOOKREADER
```
- After you execute LOGIN.COM or define the symbol, you can run DECwindows remotely by entering the symbol name.

Notes: There is a known problem where the bookreader will crash while it is painting the topic window and there is rapid mouse movement. This problem is noticed in accounts with *very* low ASTLM quota. The solution is to ask the large system manager to raise your ASTLM quota.

You can also access the bookreader from a DECwindows FileView process running remotely on a large system. Running DECwindows FileView remotely is discussed in the DECwindows documentation.

2.12 Checking Books Online

This section explains what to look for when checking an online book. Writers and editors should check books on line at every major milestone for the book. For a hardcopy/online book, for example, you might check the online book at least at field test and final drafts, then do a follow-up check just before final production. Checking a book often can help you prevent last-minute problems.

A thorough examination of an online book can take several hours, depending upon its size and the number of figures, tables, and examples it contains.

Check a PostScript version of the book against the Bookreader version of the book. Make sure you can view the entire book on line, and note anything that looks incorrect in the online version.

To scroll through an entire document, click on the Next Topic button, then use the scroll bars to scroll to the end of each section. As you move the pointer over the text, hot spots show up as thin rectangles that outline text that can take you to another topic. For example, if there is a rectangle around "Table 1" and you click on that hot spot, Table 1 is displayed in a separate window.

For more information about how to use the Bookreader, see the *VMS DECwindows Desktop Applications Guide* or *Using the Bookreader*.

The following checklist summarizes things you can look for as you scroll through a document.

- 1 Click on the bookshelf entry for the book. The contents page should appear in the main window and the title page should appear in the topic window.
- 2 View the book sequentially in the topic window. To do this, you click on the "Next Topic" button and move the scroll bar, as required, to view each entire topic. While doing this, click on each hotspot (formal

table, formal figure, formal example, footnote, or popup window). A thin rectangular box indicates the location of a hotspot.

You may find it helpful to approach the sequential search with a printed copy of the book, or, at least, a list of all formal figures, tables, or examples. The critical problem for which to check is a missing formal figure, table, or example. A formal figure, table, or example would not appear in a sequential search if there is not a `<REFERENCE>` tag in the book's sources that points to it. (It is of little help to a reader in the middle of a page that the "missing" formal figure, table, or example is listed in and accessible only from the table of contents.)

Things to check for as you view the online book:

- Can you page through the entire document? Is there missing text?
 - Do you have to perform an excessive amount of scrolling? If so, consider using the `<SET_ONLINE_TOPIC>` tag to change topic granularity as appropriate for your book (see Section 2.8.1). Topic length should not be too long (more than five to ten screens) or too short (less than $\frac{1}{4}$ of a screen).
 - Are all informal figures, tables, examples (especially those with callouts) easy to view, or must you use the horizontal scroll bar to view them entirely? If so, consider using an online popup sequence (as discussed in Section 2.8.3) to cause the Bookreader to create a pop-up window for the troublesome informal figure, table, or example.
 - Does the topic window contain only the title of a chapter, appendix, or part? It's likely that the head tag immediately follows the `<CHAPTER>`, `<APPENDIX>`, or `<PART>` tag. In this case, consider deleting the first `<HEAD1>` tag or adding an overview paragraph just after the chapter title.
 - Is each cross-reference a hotspot? If a cross-reference is not a hotspot, it has been hardcoded in the source file (for instance as "See Section 2.1.") Use the `<REFERENCE>` tag in the source file to make the cross-reference "hot." Does each "hot" cross-reference bring you to useful information?
 - Are the correct figures displayed? It's very easy to mistype a figure file name.
 - Is the display attractive? Is there excessive white space? Is the formatting correct? (See Section 2.8.3 for some examples of SDML coding practices that produce unattractive online output.)
- 3 Scroll through the table of contents. Can you access the entire table of contents?
 - 4 Access each topic by clicking on the corresponding table of contents entry. Access the preface and click on "Previous Topic" to page back to the Copyright Page and Title Page. Access each section and subsection. Access each table, figure, and example.
 - 5 Click on the "Index" button. Can you access the entire index?

Check that index entries take you to a spot relatively close to the information indexed. An index entry always takes you to the top of the topic where the <X> tag is located. Most of the time, the indexed information is within one or two screens and that is fine. Sometimes, though, you must click on "Next Topic" more than five times to find the information, or the information is in a separate topic completely. Consider moving the <X> tag so that it is closer to the information it is indexing.

- 6 Click on the "Contents" button. Does the table of contents reappear?
- 7 Check text that should be shown in second color.

Any user input should show up in boldface type in the Bookreader. For the text to show in boldface type, writers must place the <u> tags in the same way as they mark second color in the hardcopy version of the book.

- 8 After a thorough online check, be sure to do a follow-up check to verify all corrections.
- 9 Exit the Bookreader.

2.13 Delivering the Book to Graphic Services

The requirements for submitting a book to Graphic Services depend on the type of production being done. The following sections describe the procedures for online/hardcopy and online-only production.

2.13.1 Submitting a Book For Online/Hardcopy Production

When the book has built successfully for hardcopy and online, the writer proceeds with the following steps:

- Checks the following files into the appropriate CMS library:
 - Profile
 - All elements
 - All include files
 - XREF file from successful build
 - MAP_LIS file from successful online bookbuild¹
 - All UTOX art that was not generated by Graphic Services
- Submits the following items to the editor:
 - Hardcopy log files from the successful online and hardcopy builds
 - Hardcopy MAP_LIS files from the successful online and/or hardcopy build (VMS writers only)¹
 - Hardcopy output from the hardcopy (PostScript) build

¹ Automatic document set building, as used in the VMS documentation group, requires the MAP_LIS file.

2.13 Delivering the Book to Graphic Services

- Location where the output from the online build may be viewed (for editor's pre-production check).
- Notifies the editor that all files have been placed in the CMS library.

2.13.2 Submitting a Book for Online-Only Production:

Once you have built the book, including all art, successfully and are satisfied with its online display, you can deliver the book to your editor for online-only production. You can do this in one of two ways:

- Submit the source files to Graphic Services, where they will be built, proofread, and prepared for transfer to the release engineer. (This is essentially the same procedure used for online/hardcopy production.)
- Build the online book and submit the DECW\$BOOK file to Graphic Services for proofreading. In this case, you are responsible for incorporating the proofreader's comments, performing the final book build, and preparing the final online book files for transfer to the release engineer.²

The method you use depends on your group and its available resources. At the pre-production meeting (see Section 2.4,) you should identify the submission procedure that meets your requirements.

2.13.2.1 **Submitting Source Files for Online-Only Production**

If Graphic Services has agreed to build, proofread, and transfer the online books to the release engineer, the steps for submitting the book to GS are the same as those listed in Section 2.13.1.

2.13.2.2 **Submitting DECW\$BOOK Files for Proofreading**

If Graphic Services is only responsible for checking and proofreading the online book, you are responsible for incorporating the proofreader's queries and building the final DECW\$BOOK file.

To submit a book for proofreading, give your editor the following items:

- Hardcopy of the book (PostScript version) or a detailed list of changes
- A pointer to the final DECW\$BOOK and DECW\$BOOKSHELF files
 - Make sure that the file protection is set correctly to allow the editor to access the files.

When Graphic Services completes the proofreading of your book, your editor or project leader will give you a list of proofreader's comments. Discuss these comments with your editor and decide which would be worthwhile applying to the book's source files. You should balance the advantage of making the change against the risk of introducing new and impenetrable errors into the SDML files. Currently, writers are encouraged to correct the following:

- All hotspot problems (except in front matter)

² In the VMS group, the document set builder builds the final DECW\$BOOK files, and the project leader notifies the release engineer when the books are ready.

- All problems with accessing tables, figures, and examples from text
- All typos

You should also check reported blank pages to ensure that text was not dropped or files miscoded during the online conversion process.

Whatever you do, bear in mind that making any change involves again reserving files from the book's CMS library and a repeat of step 2 in Section 2.13.2. It is better to postpone fixing a minor problem than to introduce a delay in final production.

Once the proofreader's changes have been dealt with, the writer again ensures that the book builds successfully and is viewable. The writer then replaces all reserved files in the book's CMS library and notifies the editor. The editor notifies the project leader.³

³ In the VMS documentation group, once selected proofreader's changes have been made and pertinent files replaced in CMS, the document set builder rebuilds the deliverable books and sends final output and library files to the release engineer.

3

Online Editing Guidelines

Editors perform the same kinds of tasks for online books that they perform for hardcopy books. They review manuals during the writing process, and they guide books through the production process. When working on books that will be published online, however, editors check the online version of the book and use several different production procedures. The same basic procedure should be followed regardless of how the manuals are distributed. Production procedures, wherever possible, should be the same regardless of how manuals are published.

This chapter describes the following procedures editors use for online-only and online/hardcopy books:

- **Reviewing docplans**
- **Converting, submitting, and checking art**
- **Editing books for online production**
- **Viewing and checking online books (See note below.)**
- **Guiding books through online/hardcopy production**

The first section provides an overview of the editing procedures needed for the online-only and online/hardcopy processes. The remaining sections contain descriptions of these procedures and guidelines for using them.

3.1 Overview of Editing Procedures

This section lists the procedures editors use for each of the following types of production:

- **New and revised books published online-only**
- **Maintenance books (books with minimal changes) published online-only**
- **New and revised books published simultaneously as online and hard copy (online/hardcopy)**

3.1.1 New and Revised Online-Only Books

For new and revised books published as online-only versions, an editor does the following:

- **Reviews docplans**
- **Coordinates conversion of hardcopy art to online art (if not already done)**
- **Coordinates preparation of art packages**
- **Edits hard copies**

3.1 Overview of Editing Procedures

- Checks online version before final production (writer and editor)

Note: This is not simply a pre-submission requirement, and should happen regularly by both the writer and editor.

- Guides books through the online production process

3.1.2 Maintenance Online-Only Books

For maintenance books, (books with no technical changes) published online-only, an editor does the following:

- Coordinates conversion of hardcopy art to online art (if not already done)
- Checks online versions before final production (writer and editor)
- Guides books through the online production process
- Negotiates proofreading as needed
- Coordinates transfer of files to release engineer

3.1.3 New and Revised Online/Hardcopy Books

For new and revised books published simultaneously as online and hardcopy versions, an editor does the following:

- Reviews docplans
- Obtains an LPN, if necessary.
- Coordinates preparation of art packages
- Edits hard copies
- Checks online versions before final production (writer and editor)
- Guides books through the online/hardcopy production process¹

3.2 Reviewing Docplans

When reviewing docplans, editors should make sure that the following production information is included in every docplan:

- Is the book new, revised, or maintenance (no technical changes)?
- Will the manual be produced online-only or online/hardcopy?
 - If the manual is being produced online-only, how will the file be submitted to GS, see section Section 3.8.
- Do the milestones include time for checking the online version of the book?
- Is there online help that requires editing and proofreading support?

¹ For VMS, the document set builder delivers the files to the release engineer, and the project leader handles build/verification coordination.

- Art requirements (For example, will UTOX screens or RAGS figures be included? How much new and revised art is needed?)

3.3 Pre-Production Meetings

Before a document is submitted for any type of final production work, a pre-production meeting should be held to define the work required by GS. Depending on the scope of the submittal, attendance by representatives from involved groups will vary. A member from each of the following groups should attend:

- Writing (either the writer or the documentation project leader)
- Editing (either the editor or the editing project leader)
- GS art
- GS composition
- GS proofreading
- SSB product planning

The work items that need to be discussed include the following:

- List of books that will be submitted, including the title and LPN for each book.
- The schedule for submittal of each book, including the date of submittal to GS and the date of submittal to SSB.
- The type of production that will be required for each book (online /hardcopy, online-only, hardcopy only).
- Page size estimate for each book.
- Estimated number of new and revised art figures, and anticipated format (UTOX, RAGS).
- For online-only books, the submittal process that will be used (submit DECW\$BOOK and DECW\$BOOKSHELF files, or submit source files).
- For online-only books being submitted as DECW\$BOOK and DECW\$BOOKSHELF files, the naming conventions of the files must be identified.
- For online-only books, the amount of hardcopy support needed by proofreaders must be identified (hardcopy print-out of book or list of changes).
- The target OLD disc that the online versions of the books are scheduled for.
- For online bookbuilds, the anticipated DOCUMENT version and baselevel version required.
- The primary contact for each book being submitted.
- Any other outstanding issues that need to be resolved.

3.4 Converting, Coordinating, and Checking Art

This section describes editing procedures and guidelines for the following:

- Converting hardcopy art to online art
- Coordinating preparation of art packages for new and revised books
- Checking art

The art requirements for online books depend on the following:

- Whether the book has been converted to the online doctype
- Whether the book is new or revised

If a book has not been converted to the online doctype, an editor works with the book's writer and an artist to have the hardcopy art converted to online art. If a book is new or revised, an editor works with the writer to determine the art requirements for the book. (For example, will existing art need to be corrected or modified? Will any new art be created? Are overlays required for hardcopy art? What tools will be required to create the art?) The editor then coordinates with the Graphic Services art department, which prepares an art package for every book in final production.

3.4.1 Converting Hardcopy Art to Online Art

To convert existing hard copies of art to online art that can be used with the online doctype, an editor submits marked-up copies of existing hardcopy art to GS. An artist redraws the art using RAGS and places the finished art file in an art directory. After it is proofread/checked and the GS coordinator notifies the editor that the art is finished. The editor notifies the writer. The writer copies the appropriate figure files from this directory and uses them to build the online and hardcopy versions of a book.¹

When hardcopy art needs to be converted to online art, an editor does the following:

- 1 Requests the current art control list from GS.
- 2 Reviews the art control list to determine the amount and type of art that needs to be converted.
- 3 Meets with the appropriate Graphic Services art supervisor to discuss and schedule the art to be converted.
- 4 Edits hard copies of art to conform to current art standards.
- 5 Arranges for writer to copy drafts of art (generated with RAGS or UTOX) to DONVAN::ARTIN directory. Both Postscript and .BIN files should be saved.
- 6 Submits marked-up art and art control list to Graphic Services with completed job requisition form.

¹ For VMS, the copying of art figures is done automatically to CMS libraries.

Online Editing Guidelines

3.4 Converting, Coordinating, and Checking Art

- 7 Writer and editor review/check art.
- 8 Resubmits art for corrections if necessary.
- 9 Requests copy of final art control list from GS.
- 10 Gives the updated art control list to the writer.
- 11 Checks art in online book.

The following sections contain guidelines for the procedures that need more explanation.

3.4.1.1 Requesting an Art Control List

To request a copy of a current art control list, fill out a GS requisition form and request a copy of the book's current art control list. Be sure to include the old and new LPNs.

You will need copies of the figures in the book to mark up and submit for conversion. You can photocopy them from the latest version of the book, or you can request them from Graphic Services at this time.

Note: If you request hard copies of the figures from GS, be sure to check them against the figures in the latest version of the book to ensure that they are the most current versions.

3.4.1.2 Reviewing an Art Control List

When you have a copy of the current art control list, do the following:

- Check the art list against the figures that were printed in the latest version of the book.
- Make sure the list is current and that none of the art on the list is obsolete or has been deleted from the book. (By submitting copies of what appears in the book, you are sure to have the most current version. Any shading and last minute corrections will be included.)
- Meet with the writer and verify that all of the figures on the list and in the book should be converted.

3.4.1.3 Editing Hardcopy Art

Before submitting art to Graphic Services for conversion, mark up hard copies of the art using the current CUP-ZK Production Art Guidelines.

3.4.1.4 Submitting Marked-up Hardcopy Art

To submit hardcopy art to Graphic Services for conversion, do the following:

- Fill out a Graphic Services requisition form for every book.
- Submit the requisition form to Graphic Services with the following items:
 - A copy of the art control list, indicating any obsolete figures
 - Marked-up copies of any revisions to existing art

3.4 Converting, Coordinating, and Checking Art

3.4.1.5 Checking Converted Art

To check the converted art, refer to the guidelines in Section 3.4.4

3.4.1.6 Resubmitting Art for Correction

If art needs to be corrected, do the following:

- Mark any corrections and changes clearly on the hardcopy of the converted art.

Note: GS provides a hardcopy of the art that has been converted to online art. This is the copy that you should mark up and submit for corrections.

- Fill out a new Graphic Services requisition form.
- Submit the requisition form and the art corrections to GS.

3.4.1.7 Giving Updated Art Control List to Writer

When all of the art has been converted and corrected, request an updated art control list from GS.

Give the updated art control list to the writer; the writer inserts all of the pica measurements into the figure file tags in the source files.

3.4.1.8 Checking Art On Line

After the writer has built an online version of the book that includes art, the editor and writer checks the art.

3.4.2 Coordinating Art Packages for Revised Books

To coordinate the preparation of art packages for revised books that will be published as online-only or online/hardcopy versions, an editor does the following for every book:

- 1 Requests an art control list immediately upon receiving an assignment.
- 2 Reviews the art control list with the writer and determines which art needs to be converted, revised, or created.
- 3 Arranges for writer to copy drafts of art (generated with RAGS or UTOX) to DONVAN::ARTIN directory.
- 4 Submits marked-up art and art control list to Graphic Services with completed job requisition form.
- 5 Checks completed art.
- 6 Resubmits art for corrections if necessary.
- 7 Requests updated art control list when all art corrections are complete.
- 8 Gives writer updated art control list.
- 9 Checks online version during preproduction verification. Examines specific details, including cropping, placement, sizing, and black lines.

The following sections contain guidelines for procedures that need more explanation.

3.4 Converting, Coordinating, and Checking Art

3.4.2.1 Requesting an Art Control List

To request a copy of a current art control list, fill out a GS requisition form and request a copy of the book's current art control list. Be sure to include the old and new LPNs.

You will need copies of the figures in the book to mark up and submit for revision. You can photocopy them from the latest version of the book, or you can request them from Graphic Services at this time.

Note: If you request hard copies of the figures from GS, be sure to check them against the figures in the latest version of the book to ensure that they are the most current versions.

3.4.2.2 Reviewing an Art Control List

When you have a copy of the current art control list, do the following:

- Check the art list against the figures that were used in the latest version of the book.
- Make sure the list is current and that none of the art on the list is obsolete or has been deleted from the book.
- Meet with the writer and verify that all of the figures on the list and in the book will be included and find out how much new art is needed.

3.4.2.3 Submitting New and Revised Art to GS

All requests for new and revised art must be submitted to Graphic Services at least six weeks before the book's final production date. An art package must be complete two weeks before a book's final production date. Discuss individual book deadlines with the appropriate GS art supervisor.

Work closely with the writer and submit art as soon as the technical information is firm. All corrections do not have to be submitted at one time. Submitting art in stages as soon as it is firm reduces the chances of a "bottleneck" in Graphic Services or a mad rush before the final production date. This is especially important for books that have many figures.

For new art, writers can

- Give editors hand-drawn rough sketches
- Create online art drafts using RAGS and copy the files to the DONVAN::ARTIN directory. (RAGS files are considered art and will be assigned art control (ZK) numbers.)
- Capture screen displays using UTOX and include them in their source files. (UTOX files are not considered art and are not assigned ZK numbers.)
- UTOX annotated images are assigned ZK numbers, and stored in CMSART.

To submit RAGS or UTOX files to GS, an editor must:

- List the RAGS or UTOX file names on a Graphic Services requisition form

3.4 Converting, Coordinating, and Checking Art

- Attach copies of the figures or screens (and any changes) to the GS requisition form

To submit new and revised art to GS, an editor must:

- Fill out a Graphic Services requisition form for every book.
- Submit the requisition form to Graphic Services with the following items:
 - A copy of the art control list, indicating any obsolete figures
 - Marked-up copies of any revisions to existing art
 - File names of UTOX files with captions or RAGS files

3.4.2.4 Checking Revised Art

To check revised art, refer to the guidelines in Section 3.4.4

3.4.2.5 Resubmitting Art for Correction

If art needs to be corrected, do the following:

- Mark any corrections and changes clearly on the hardcopy of the revised art.

Note: GS provides a hardcopy of the art that has been converted to online art. This is the copy that you should mark up and submit for corrections.

- Fill out a new Graphic Services requisition form.
- Submit the requisition form and the art corrections to GS.

3.4.2.6 Giving Updated Art Control List to Writer

When all of the art has been converted and corrected, request an updated art control list from GS.

Give the updated art control list to the writer; the writer inserts all of the pica measurements into the figure file tags in the book.

3.4.2.7 Checking Art On Line

After the writer has built an online version of the book that includes art, use the guidelines to check the art.

3.4.3 Coordinating Art Packages for New Books

New books require special art considerations and are handled by GS on an individual basis. To coordinate the preparation of the art package for a new book, an editor does the following:

- 1 Meets with the appropriate Graphic Services art supervisor to discuss the stability of the art and the amount of art that will be needed.
- 2 Works with the writer to find out whether any existing art can be used.
- 3 Submits hardcopy rough sketches and filenames of RAGS and UTOX draft files created by writers to GS. Can request GS to proofread art changes.

3.4 Converting, Coordinating, and Checking Art

- 4 Checks art (writer and editor).
- 5 Resubmits art for correction if necessary.
- 6 Requests final art control list from GS.
- 7 Gives final art control list to writer.
- 8 Checks figure placement in online version during a preproduction online check.

3.4.4 Checks Completed Art

When checking the completed art, an editor uses the following guidelines:

- Check the marked-up hard copy you submitted against the hardcopy of the online art you receive from GS.
- Make sure that the new version matches the marked-up copy you submitted and that no errors were introduced.
- Double-check the pica measurements that appear on the slug line (the banner at the top of the figure) of every figure against the pica measurements on the art control list.

The art control list has two columns for pica measurements:

- The HC_PI column contains the PostScript measurement.¹
- The GE_PI column contains the online measurement.

The slug-line measurement includes the scaled size for reduced art and should be the same as the measurement listed in the HC_PI column on the art control list.

- Look for anything that doesn't look quite "right". For example, the following table lists some of the problems and solutions encountered during the conversion of the art in the VMS docset.

Table 3-1 Art Problems and Solutions

Problem	Solution
Some of the arrowheads appear off-center when an arrow is curved.	Editor must resubmit art for correction. (The artist has to adjust the angle of the curve very carefully until the arrowhead appears correct.)
Type size is too small in hardcopy version.	Artists check size of type on reduced art. If the type size is less than 6 points., the artist notifies the appropriate editor. The editor, writer, and artist must work out a solution. For example, some figures can be redesigned or made into two figures.
Callout type size is too small in reduced art.	Editor, writer, and artist must redesign the figure so the callouts can be made larger.

(continued on next page)

¹ How to convert for LN03 copy— to get the SIXEL file measurement, multiply the postscript measurement by 1.08%

Online Editing Guidelines

3.4 Converting, Coordinating, and Checking Art

Table 3-1 (Cont.) Art Problems and Solutions

Problem	Solution
Hardcopy art is too large to fit on one page but is one piece on line. (For example, large keyboards be 100% on line because the reader can use the scroll bar to view them, but they are illegible when reduced to fit on one hardcopy page.)	The art has to be pasted up for hardcopy. The editor must let the Graphic Services composition supervisor (Nance Leaver) know of any special requirements before the book is submitted for final production. For example, if a large keyboard is divided into two figures that must be pasted up on facing pages. CUP Engineering is aware of the problem
How to indicate second color in online art.	Artist uses monospaced type to indicate second color. Note that the type is not boldface.
How to indicate shaded areas in online keypad diagrams. For hard copy versions, writers use the <keypad> tag to create keypads. Because an artist uses overlays to highlight various functions, the highlighted areas are not shown in the online doctype.	Artist redraws every keypad with RAGS and assigns a ZK number to each figure. The ZK number does not appear in figure. The artist has to crop it out.
How to indicate shaded areas in online code examples. (For example, highlighting the buffer line or cursor movement.) Artists use overlays for hardcopy versions.	A solution is still under discussion.
How to size art that is shared by different doctypes.	Currently, artists size figures to the smaller doctype.

3.5 Editing Manuals for Online Publication

An editor edits online manuals during the writing process whenever a writer distributes review drafts. When editors view and check online books, they are checking to make sure books are viewable, complete, and formatted correctly.

Editors make editorial comments on hard copies of a draft; they do not make corrections in source files. Sometimes a content-related issue "jumps off the screen" when an editor is checking an online book. The editor should note such an item on a hard copy of the book and give it to the writer.

For more information about preparing to view an online book, see Section 2.11

3.6 Checking Books On Line

This section explains what to look for when checking an online book. Writers and editors should check books on line at every major milestone for the book. For a hardcopy/online book, for example, you might check the online book at least at field test and final drafts, then do a follow-up check just before final production. Editors should also do a follow-up check just before the book is ready to be included on the CD. Checking a book often can help you prevent last-minute problems.

For information about how to use the Bookreader, see the *VMS DECwindows Applications Guide and Using the Bookreader*.

Check a PostScript version of the book against the Bookreader version of the book. Make sure you can view the entire book on line, and note anything that looks incorrect in the online version.

To scroll through an entire document, click on the Next Topic button, then use the scroll bars to scroll to the end of each section. As you move the pointer over the text, hot spots show up as thin rectangles that outline text that can take you to another topic. For example, if there is a rectangle around "Table 1" and you click on that hot spot, Table 1 is displayed in a separate window.

The following checklist summarizes things you can look for as you scroll through a document.

1 Scroll through the TOC.

Look for missing information, accuracy of the TOC, section numbers overwriting other text (this can happen with a 5-digit section number), and duplicate section numbers. If symbolic names used for references are identical in two places, this will mix up the order of the numbers in the online version, even though it might not show up in the hardcopy version.

2 Check the front matter for the correct information:

- Copyright date
- Revision/Update information
- Software Version
- Order number
- Current trademark information

Make sure the DOCUMENT statement does not overwrite the trademarks.

- Correct conventions page

Also make sure the following sentence is added to the user input convention: "For online versions, user input is shown in bold."
Note that the word *bold* is shown in boldface type.

3 Spot check the index.

- Look up two entries for each letter represented in the index.

Make sure you don't need to scroll through more than two screens before you find the information.

- Make sure that the index is complete.
- Recommended: Make sure index entries are not coded within a formal figure, table, or example. If a reader clicks on an index entry resulting from this type of coding, the Bookreader displays the pop-up window alone. Without additional context, such entries usually are not helpful for a reader.

4 Check for consistent and appropriate length of topics.

This is called granularity. Topics should not be too short (less than one quarter screen) or too long (more than five screens, as a guideline). The default granularity is usually sufficient; however, writers can use the `<SET_ONLINE_TOPIC>` tag to change the granularity. For more information about granularity, see the *Coding Documentation Source Files for the DECwindows Bookreader*.

5 Check for blank topics.

Make sure text follows each heading. For example, if Section 1.1.1 immediately follows Section 1.1, the topic for Section 1.1 will be blank except for the heading.

6 Check all cross-references and references to formal tables, figures, and examples.

- Make sure every formal figure, table, and example has a corresponding reference in text. Every reference should be a hot spot.
- All cross-references should be hot spots. Cross-references for which the `<REFERENCE>` tag is not used will not be hot spots. Check the Preface closely for this.
- Make sure that there is always a direct way for the user to get to each section, figure, table, or example from the text.

For example, do not write, "See Sections 1 through 3." no direct way for the user to get to Section 2 in this case. Instead, specify what information users can expect to find in each section.

- Hot spots should span the name of the entire reference.

For example:

Section 3.1, Example 1, Table 3-4 should be hot spots, not just the numbers 3.1, 1, or 3-4.

7 Check all formal figures and tables.

- Make sure table columns do not overwrite.

This can happen with long names that require underscores or dollar signs.

- Make sure the correct figures are displayed.

Do not assume that the figures are correct because they are correct in the hardcopy version of the book; it is very easy to mistype a figure file name. In addition, some art problems are specific to the online version.

- Make sure online figures do not contain black spots outside of the image area.

8 Check all informal figures, tables, and examples.

Because these items cannot be accessed through the TOC or index, you must scroll through the text to see them. If you must scroll to see an entire figure, table, or example, the writer should consider using the `<ONLINE_POPUP>` tag to make the figure, table, or example pop up in a separate window.

- 9 Check text that should be shown in second color.
Any user input should show up in boldface type in the Bookreader. For the text to show in boldface type, writers must place the <U> tags in the same way as they mark second color in the hardcopy version of the book.
- 10 Also, for layered products, any extensions to ANSI standards should show up on line in a shaded area.
- 11 After a thorough online check, be sure to do a follow-up check to verify all corrections.

3.7 Guiding Books Through Online/Hardcopy Production

The procedures used to produce online/hardcopy books are similar to the traditional hardcopy production path through Graphic Services, except for the following:

- To accommodate integrated graphics, PostScript output is used for hardcopy; and, the VT600 is used for the repro-generating device.
- Operators perform an online bookbuild after the VT600 hardcopy is generated.
- Proofreaders and editors check online bookbuilds.

This section contains guidelines for the following procedures an editor uses when guiding a book through the online/hardcopy production process:

- Getting a book ready for final production
- Submitting jobs to GS
- Checking PostScript drafts
- Checking VT600 repro
- Checking online books in final production
- Preparing repro packages

For an overview of the complete online/hardcopy production process, refer to the online/hardcopy flowchart in Chapter 1. For descriptions of the online/hardcopy procedures Graphic Services personnel use, refer to Chapter 4.

3.7.1 Getting a Book Ready for Final Production

Before submitting a book for final production, do the following:

- 1 Submit print-spec information to print coordinator four to six weeks before the to-print date.
- 2 Ensure that the online submission form has been submitted to the release engineer eight to ten weeks prior to the consolidation date.

3.7 Guiding Books Through Online/Hardcopy Production

- 3 Check with writer and ensure that writer's CMS, or CMSDOC account is current and the writer has access to the appropriate CMS library.

3.7.2 Submitting a Book to GS

To submit a book to Graphic Services for final production, do the following:

- 1 Check CMS library (after being notified by writer) to make sure SDML files have been checked in and are unreserved. The following files should be checked into the appropriate CMS library:
 - Profile
 - All elements
 - All include files
 - XREF files
 - MAP_LIS file from successful online bookbuild¹
 - All UTOX art that was not generated by Graphic Services. (Writers do not create CMS elements for artwork that has been generated by Graphic Services.)
 - Arrange to get art not created by GS, to GS
- 2 Perform a production editing pass on the latest PostScript draft. Check the latest version of the online book.
- 3 Give the following items to the Graphic Services coordinator by 3 p.m. on the day of final production submission:
 - Completed Graphic Services Job Requisition Form, which requests Graphic Services to clean up files, generate first PostScript draft, and proofread.

Note: Be sure to write any special instructions or processing information on the requisition form. For example, if you have art files not created by GS, include the full file names on the requisition form and check that the file protection permits world access.

- Updated art control list
- Hard copies from writer (PostScript draft of book, LOG file from online bookbuild, and LOG file from hardcopy bookbuild)

3.7.3 Checking a First PostScript Draft

To check a first PostScript draft, do the following:

- 1 Resolve all queries from the proofreader and check first PostScript draft for bad line and page breaks.

Note: The online doctype ignores hardcopy line and page break tags.

¹ Automatic document set building, as used in the VMS documentation group, requires the MAP_LIS file.

3.7 Guiding Books Through Online/Hardcopy Production

- 2 Make no additional editorial changes at this time, unless the changes are technical corrections.
- 3 Return the first PostScript draft to the Graphic Services coordinator with a new Graphic Services requisition form that requests the following:
 - a hardcopy bookbuild
 - second PostScript draft
 - an online bookbuild
 - proofreading

3.7.4 Checking a Second PostScript draft

To check a second PostScript draft, do the following:

- 1 Review second PostScript draft to verify page and line breaks and to confirm that other corrections have been included.
- 2 Resolve all proofreader's queries.
- 3 Return the second PostScript draft and a new Graphic Services requisition form to Graphic Services coordinator that requests the following:
 - a VT600 copy
 - sending VT600 repro to art
 - an online bookbuild and a duplicate PostScript draft
 - proofreading

3.7.5 Checking a VT600 Copy

To check a VT600 copy, do the following:

- 1 Check any corrections made by artist.
- 2 Give final PostScript draft to writer, so the writer can mark it for second color.

Note: User input appears in the online doctype in boldface type. Extensions to ANSI standards will appear shaded.

- 3 Check repro for missing pages or type and correct folios.

3.7.6 Checking an Online Book

If the proofreader finds problems with the online manual or has questions, the proofreader sends questions to the editor. The editor does the following:

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3.7 Guiding Books Through Online/Hardcopy Production

- 1 Redefine the logical name DECW\$BOOK to point to the directories REDINK::REDINK\$DUA2:[OLDPRO.mmmCD].¹

```
$ define decw$book redink::redink$dua2:[olprod.jancd]
```
- 2 Resolve proofreader queries
- 3 Spot check any areas you know may have problems
- 4 If corrections are needed, mark them on the duplicate postscript draft, put paper clips on the marked pages and submit to GS (with a filled-out requisition form) for correction.

3.7.7 Preparing a Repro Package

To prepare a repro package for submission to the SSB, do the following:

- 1 Create assembly sheet.
- 2 Fill out repro checklist.
- 3 Bring complete repro package to Graphic Services print coordinator by 3 p.m. the afternoon before the SSB submission date (that is, the to-print date). The complete repro package consists of the following:
 - VT600 copy
 - second color mark-up
 - cover and spine mechanicals
 - layout board (which must contain the part number)
 - assembly sheet
 - repro checklist
 - copy of final print spec

The Graphic Services print coordinator adds the final print spec to the repro package after verifying the information with the editor.

3.7.8 Submitting CDROM Files

The editor or person responsible for submitting the book to Graphic Services should do the following:

- 1 Check that the operator has made the final DECW\$BOOK file available in the [OLPROD.mmmCD] subdirectory.¹
- 2 Rename the file with the correct 2-5-2 or 2-5-2-4 number.²
- 3 Verify that the bookshelf files include each book in the documentation set.

¹ If you have trouble accessing the file, copy the readable output to your directory (from the online bookbuild) that is located in the directory REDINK::REDINK\$DUA2:[OLPROD.mmmCD] to your directory.

For example, for the January CD, the directory is [OLPROD.JANCD].

² For VMS, the project leader delivers books on backup tape to the release engineer already renamed.

3.7 Guiding Books Through Online/Hardcopy Production

- 4 Notify Release Engineer that the files are ready.

3.8 Guiding Books Through Online-Only Production

The procedures used to produce online-only books are similar to the traditional hardcopy production path through Graphic Services; however, online-only production can be done in one of two ways:

- Following the path used for hardcopy production, the source files for an online book can be submitted to Graphic Services, where they will be built, proofread, and prepared for transfer to the release engineer.
- Using a slightly different approach, a writer can build the online book and submit the DECW\$BOOK file to Graphic Services for proofreading. In this case, the writer is responsible for incorporating the proofreader's comments, performing the final book build, and preparing the final online book files for transfer to the release engineer.

The first method is appropriate for groups that require the hardware and staffing resources in Graphic Services to do the final bookbuild and proofreading pass. The second method is more suitable for groups that have the necessary bookbuilding resources and would prefer to retain control of their source files. For example, the writing group might maintain its own CMS libraries for source control to maintain multiple versions of the documentation set.

Prior to submitting the book to Graphic Services, the online-only procedures are the same as the online/hardcopy procedures for producing a book. The writer and editor should check the online version prior to submission.

3.8.1 Submitting Source Files for Online-Only Production

The procedure for submitting source files for online-only production is the same as the procedure described in Section 3.7, except for what you specify on the requisition form. For online-only production, request Graphic Services to build the book for online-only production and proofread.

Resolve proofreader's queries in the same manner as you would for hardcopy/online production. You might need to view the online version to answer some of the queries.

If corrections are needed, mark them on the hard copy, put paper clips on the marked pages, and submit a new requisition form to GS for correction.

Refer to Section 3.7.8 for instructions for submitting a CDROM package.

3.8.2 Submitting DECW\$BOOK Files for Proofreading

The second method for producing online-only books requires Graphic Services only to check the online version and to proofread new and changed portions of the document. The writer is responsible for incorporating any final changes into the source files and rebuilding the book.

- 1 Copy the DECW\$BOOK file and the DECW\$BOOKSHELF file created by the build to [OLPROD.mmmCD]. Make sure that the file name of the DECW\$BOOK file corresponds to the entry in the DECW\$BOOKSHELF file. For example, if the file name is 4753pro.DECW\$BOOK, the entry in the DECW\$BOOKSHELF file created by the build should look like this:

BOOK\4753PRO\Guide to Saving Trees

Note: The names of the DECW\$BOOK and DECW\$BOOKSHELF files must be identical.

- 2 Give the following items to the Graphic Services coordinator by 3 p.m. on the day scheduled for submittal:
 - Completed Graphic Services Requisition form, which requests Graphic Services to proofread the online version. Make sure you specify the names of the DECW\$BOOK and DECW\$BOOKSHELF files on the Requisition Form.
 - Hardcopy version of the book (PostScript version). For online-only revisions the writer should mark change bars on the hard copy. For books with only minimal changes, a detailed list of changes might be appropriate if arrangements are made beforehand.
- 3 Resolve proofreader's queries in the same manner as you would for hardcopy/online production. You might need to view the online version to answer some of the queries.
- 4 Give the proofreader's queries to the writer, who incorporates the final changes and rebuilds the book.

4

Graphic Services Production Procedures

This chapter describes the procedures that operators, artists, and proofreaders use to produce online-only and online/hardcopy books.

4.1 Online/Hardcopy Procedures

The following sections describe the final production procedures GS uses to produce online and hardcopy versions of books from the same (SDML) source files.

4.1.1 GS Coordinator Reserves Files

When a book is submitted for final production, check with the writer to confirm file transfer arrangements for final production. For example, some groups use CMS or CMSDOC, others provide a tape of writers files to production, and others copy the stable files to an account on the production system.

- 1 GS coordinator reserves the SDML files from CMS or CMSDOC.
- 2 GS coordinator gives hard copies and job requisition form to composition supervisor.
- 3 Composition supervisor assigns a Graphic Services operator to the book.

Note: When a book is assigned to a Graphic Services operator, proofreader, or artist, that person is responsible for the book throughout the entire production process.

4.1.2 GS Operator Cleans Up Files and Generates First PostScript Draft

To clean up SDML files and generate a first PostScript draft, a Graphic Services operator does the following:

- 1 Copies .SDML files, .XREF file, and any symbols files from the [finalpro] area.
- 2 Checks elements against profile to make sure all elements are available.
- 3 Copies figure files from DONVAN::ARTOUT.
- 4 Runs ONLINE_CLEANUP.COM¹ against the profile. This command procedure looks at every element in the profile. It checks for misplaced <p> tags and adds symbolic names to head tags.

¹ As of this writing, neither version of ONLINE_CLEANUP.COM have been verified to work with Version 2.0 of the DECwindows Bookreader.

Graphic Services Production Procedures

4.1 Online/Hardcopy Procedures

- 5 Checks ZK numbers and figure sizes in source files against the final art control list and corrects sizes if necessary.
- 6 When cleanup is complete, a Graphic Services operator processes files individually by chapters, excluding TOC, and index, and produces the first PostScript draft. (In other words, the operator does not build the book.)
- 7 Submits first PostScript draft to proofreading supervisor. Proofreading supervisor assigns a proofreader to the book.

4.1.3 Proofreader Checks First PostScript draft

To proofread a first PostScript draft, a proofreader does the following:

- 1 Compares the PostScript draft word-for-word against the writer's hard copy and checks for the following:
 - Typos
 - Format inconsistency
 - Bad line and page breaks
 - Spacing problems
 - Art placement problems
 - Anything that differs from the writer's hard copy submitted to GS by the editor
- 2 Returns writer's hard copy and first PostScript draft to the Graphic Services coordinator.

The Graphic Services coordinator then notifies the editor that the first PostScript draft is ready for review. (If the request date on the Graphic Services Job Requisition Form is in jeopardy, a member of GS personnel will notify the editor.)

4.1.4 GS Operator Builds Book for Hardcopy and Online Version and Generates Second PostScript draft

To build the book and generate a second PostScript draft, a Graphic Services operator does the following:

- 1 Makes all changes (as resolved by editor) in the source files.
- 2 Adds appropriate final cleanup tags (line_break or page_break tags). (These tags are included in the SDML files but are recognized only by the hardcopy doctype.)
- 3 Builds book for hardcopy version and generates second PostScript draft. This copy includes the TOC, index, and Reader's Comments pages (also "How to Order" page if it becomes a separate element).
- 4 Builds book for online and performs online spot check of figures, tables, and examples.
- 5 Makes corrections to source files and rebuild if necessary.

- 6 Returns job to assigned proofreader.

4.1.5 Proofreader Checks Second PostScript draft

When checking a second PostScript draft, a proofreader checks the following:

- 1 All changes, including line and page breaks, are verified.
- 2 TOC matches the book.
- 3 Index is completely proofed for typos and spot-checked for accuracy.

When the proofreader returns first and second PostScript drafts to the Graphic Services coordinator, the Graphic Services coordinator notifies the editor that the second PostScript draft is ready for review.

4.1.6 GS Operator Generates VT600 Repro and Builds Book for Online Version

To generate a VT600 copy and build the online book, a Graphic Services operator does the following:

- 1 Incorporates into the source files final corrections received from the proofreader and editor.

Note: If there are more than a few minor changes, the operator should contact the editor when the changes have been made. The editor must check these changes as quickly as possible in the operator's office.

- 2 Builds book for the hardcopy version to incorporate any corrections and generates one VT600 repro for each book and two copies of final PostScript draft.
- 3 Builds book for the online version, using the latest version of tools, and views the online version to ensure it is intact.
- 4 Copies the readable output file from the online bookbuild to the appropriate subdirectory
REDINK::REDINK\$DUA2:[OLPROD.mmmCD].
- 5 Gives one final PostScript draft and VT600 repro to the assigned artist and gives the duplicate PostScript draft to the proofreader.

4.1.7 Artist Pastes Up VT600 Repro

To paste up a VT600 repro, an artist does the following:

- 1 Pastes up on boards any pages that do not have folios (for example, front matter, part pages, Reader's Comments pages, etc.).
- 2 Manually moves text and art that cannot be done within source code.
- 3 Brings completed VT600 repro and final PostScript draft to the assigned proofreader.

4.1 Online/Hardcopy Procedures

4.1.8 Proofreader Checks VT600 Repro and Online Version

To proofread a VT600 repro, a proofreader does the following:

- 1 Checks the final PostScript draft (which matches the VT600 repro) to ensure that type and art corrections have been made from the second PostScript draft.
- 2 Photocopies any VT600 pages modified by a Graphic Services artist.
- 3 Inserts photocopied pages into the final PostScript draft.
- 4 Checks to see that the final PostScript draft matches exactly the VT600 repro (except for the "DRAFT" identifier, which is not on the VT600 pages.)
- 5 Puts the VT600 repro in the Graphic Services repro cabinet.

Note: VT600 repro must remain in Graphic Services.

- 6 Returns final PostScript draft, which includes inserted photocopied pages, to the Graphic Services coordinator. This final PostScript draft is used as the second color mark-up copy.
- 7 Checks the online version after the hardcopy version has been checked (and corrected, if necessary).

To check an online book, a proofreader:

- Runs the Book Verification Utility and uses the log file to record comments.
- Opens the readable output file (from the online bookbuild) that is located in the appropriate subdirectory `REDINK::REDINK$DUA2:[OLPROD.mmmCD]`.
 - Ensures that the readable output file is complete. Clicks on all book elements (chapters, TOC, index) to make sure they are included.
 - Makes sure that every formal figure and table is included by clicking on each figure and table.
 - Spot checks index entries to make sure the entries point to the correct topics.
 - Skims the online version for "anything strange" like floating hyphens or symbols. (These problems are probably software bugs and should be reported to the CD release engineer as well as the editor. (The CD release engineer reports software bugs to CUP Engineering.)
- 8 Proofreader annotates the Book Verification Utility¹ log file (`.ANALYSIS`) and mails it to the editor.

At the end of the online check, the proofreader notifies the GS coordinator that the online check is complete.

¹ As of this writing, the Book Verification Utility has not been verified to work with books built for Version 2.0 of the DECwindows Bookreader.

The GS coordinator notifies the editor that the job is complete.

4.1.9 GS Operator Builds Final Book for Online Version

To build the final version of the online book, a Graphic Services operator¹ does the following:

- Incorporates into the source files final corrections received from the proofreader and editor.

Note: If there are more than a few minor changes, the operator should contact the editor when the changes have been made. The editor must check these changes as quickly as possible in the operator's office.

- Builds book for the online version and views to be sure book is intact.
- Copies the readable output file from the online bookbuild to the appropriate subdirectory
REDINK::REDINK\$DUA2:[OLPROD.mmmCD].
- Notifies the editor, proofreader, and Release Engineer that the book is ready for submission.
- Notifies GS coordinator that files have been completed and transferred.

4.1.10 GS Coordinator Notifies Editor

When the hard copy and online versions are completed, the GS coordinator notifies the editor that files are ready for renaming and submission.

4.1.11 Proofreader Checks Assembly Sheet

After the editor prepares the repro package, the GS print coordinator brings the repro, second color mark-up, and assembly sheet to the proofreading supervisor.

The proofreading supervisor gives these items to a proofreader who does the following:

- Checks the assembly sheet against the repro and second color mark-up.
- Returns repro, assembly sheet, and second color mark-up to the Graphic Services print coordinator.

The Graphic Services print coordinator notifies the editor immediately if errors are found.

¹ VMS does its own final build.

Graphic Services Production Procedures

4.1 Online/Hardcopy Procedures

4.1.12 GS Print Coordinator Creates Final Print Spec

To create a final print spec, a Graphic Services print coordinator does the following:

- Resolves any problems with the editor and checks the repro package against the Repro Checklist.
- Creates the final print spec and mails a copy to the editor.

4.1.13 GS Print Coordinator Submits Book to SSB

When the print spec is final, a Graphic Services print coordinator sends the repro package to Print Purchasing at the SSB.

5

Online Project Leader

The online project leader is one who is responsible for ensuring the online production cycle for the book(s) are in place and follows the book(s) through each process. The online project leader may be the supervisor, writer, or editor in the group.

A documentation group decides which books will be included on a specific compact disc (targeted disc). According to the current schedule, an online CD release ships every two months, usually on the first Monday of the month. Preparing to ship a book or set of books on a given CD requires careful planning, scheduling, and coordination to ensure that books are ready on time.

It is critical that someone coordinate art conversion and online proofreading long before the targeted disc ships.

If a documentation group is to ship many books on a targeted disc, it is appropriate that a online project leader be assigned to coordinate the work delivered to Graphic Services and the files delivered to the release engineer. If only a few books are destined for a targeted disc, then it is appropriate that the editor and writer of each book coordinate to perform the steps outlined in this chapter.

The online project leader for an online document project performs the following tasks:

- Determines which online books must be provided on a targeted disc
- Establishes a schedule specifying dates for the delivery of each book to Graphic Services and to the release engineer
- Organizes the books in the online document set into a bookshelf (or bookshelves) such that they are easily accessible from the DECwindows Bookreader
- Fills out the online submission form
- Coordinates required work (for instance, online cleanup and other coding conventions) among the responsible writers, editors, product managers, and release engineer
- Delivers final output files of all books to the release engineer

The following sections describe each task in detail.

5.1

Determining Online Books to Be Provided for a Targeted Disc

The online project leader consults with writing management to determine which online books must be provided for a targeted disc. There are two requirements:

- The online document set must support the software being shipped in the same software CDROM.

5.1 Determining Online Books to Be Provided for a Targeted Disc

- In most cases, the online document set must be complete. If one or more books in the document set cannot be provided, the entire document set must wait until all books are ready.

In general, the following documentation types do not ship in bookreader format:

- Hardware installation and operation guides.
- Master indexes. (Online bookbuilding software does not yet support the generation of master indexes. When master indexes are supported, they should be included in the online documentation set.)
- Software product descriptions (SPDs).
- Cover letters.¹
- CD booklets.¹

It may be required that certain .TXT files are required for CONDIST. The files need to be supplied in an online form, not bookreader. For example:

- Release Notes
- Installation Guides
- Cover Letter
- Customer Letter

The online project leader at this time creates a list of books that compose the online document set. This list must include the LPN, title, and order number of each book. This information will be useful in constructing bookshelves (see Section 5.3) and completing the online submission form (see Section 5.4).² The online project leader can add information to the list, such as art conversion or proofreading status, as the project progresses.

5.2 Scheduling the Project

The online project leader is responsible for establishing milestones for the delivery of the online document set. Generally, documentation milestones are derived from the shipping date of the targeted disc and are heavily influenced by the milestone dates set by the release engineer for coordinating the delivery of the entire contents of that CD.

When scheduling milestones for the online document set, the online project leader must bear in mind the following requirements:

- 1 Eight to ten weeks prior to the targeted disc date, the online project leader completes the online submission form and submits it to the release engineer. (For example, if the product is targeted for the March 6 disc, the online submission form is due to the Release Engineer by

¹ The online project leader may or may not be responsible for the production of a hardcopy cover letter or CD booklet.

² In the VMS documentation group, the online project leader sends a copy of this list to the document set builder and CMS librarian.

January 1.) See Section 5.4 for instructions on completing an online submission form.

- 2 Five weeks prior to the targeted disc date, all DECW\$BOOK and DECW\$BOOKSHELF files are due to the release engineer. (For example, if the targeted disc date is March 6, the completed files are due to the release engineer no later than February 1.)

Given these milestones, the online project leader must ensure that all files listed in the online submission form can be delivered for the targeted disc. If some problem occurring in online conversion or art conversion makes it obvious that a given book or bookshelf cannot be made available for the targeted disc, the online project leader must withdraw the book from the online submission form six weeks prior to the targeted disc date.

The online project leader therefore should schedule potentially problematic and time-consuming work as early as possible. The following list suggests an optimal ordering of priorities:

1 Art package final

No later than eight weeks prior to targeted disc date, Graphic Services must have completed art conversion. The online project leader should meet with the art supervisor and responsible editor(s) to determine the time needed to convert the art. Until all art for a given book is final, a writer cannot insert the correct figure file names and pica sizes in a book. (The editor(s) actually submit the art to Graphic Services and deliver the final art control list to the writers.)

2 Books ready for final production

No later than six weeks before submittal to release engineer, the online documentation files (DECW\$BOOK and DECW\$BOOKSHELF) are delivered to either the editors or Graphic Services.¹ Generally, all books must contain all art, must build successfully, and must be viewable with the DECwindows Bookreader.

When Graphic Services is to perform the production, the online project leader must additionally determine whether all books in the online document set can be delivered at the same time or whether the set is submitted in installments.

When GS does the builds, the online project leader must ensure that source files are delivered.

3 Proofreading complete

The online project leader should meet with the proofreading supervisor to determine the amount of time needed to proofread the online document set.

¹ In the VMS documentation group, the online project leader consults with the document set builder and CMS librarian for this date. If the work submitted to proofreading is to be batched, the document set builder delivers DECW\$BOOK and DECW\$BOOKSHELF files to proofreading.

5.2 Scheduling the Project

These are important priorities that should be discussed at the pre-production meeting. The online project leader should attend this meeting to determine the amount time needed for the cycle.

- Art package final—no later than eight weeks prior to submission
- Books submitted to GS

Depending on online or online/hardcopy process.
See sections 1.7 and 1.8 for details on either of these processes.

- Books completed by GS

The online project leader should maintain a list of all books that must be proofread, indicating the type of proofreading check (complete, partial, spot-check) required for each book. The online project leader should know the approximate page count of the entire document set.

4 Final book builds scheduled

On these dates, final book builds for the books in the online document set must be performed.¹

Books undergoing online-only production are built by individual writers, or by Graphic Services. Books undergoing simultaneous online/hardcopy production are built by the Graphic Services operator.

5 Delivery to release engineer

On this date (no fewer than five weeks from the targeted disc date), the online documentation files (DECW\$BOOK files) are delivered to the release engineer.²

The online project leader must consider how much time will be required to submit the online books to the release engineer. If a Graphic Services operator has performed the final bookbuilds, the operator delivers the books to the release engineer. If the final bookbuilds have been performed outside of the Graphic Services group, the person responsible for the builds (for instance, the online project leader) delivers the books as agreed with the release engineer. If the books are produced off-site or involves a large block size or large doc set, they must be submitted on tape, otherwise they can negotiate with the release engineer about delivery. Allow an extra half-day for the tape backup.

¹ In the VMS documentation group, the online project leader consults with the document set builder and CMS librarian for this date. For online releases, the document set builder performs the final book build (that is, a document set build) and delivers DECW\$BOOK files to the release engineer.

² In the VMS documentation group, the online project leader consults with the document set builder and CMS librarian for this date. For online-only and online/hardcopy releases, the document set builder performs the final book builds (that is, a document set build) and delivers DECW\$BOOK files to the release engineer.

5.3 Organizing Books and Bookshelves

The user of the DECwindows Bookreader accesses books by scanning the contents of the main library and any of a series of bookshelves that originate from a bookshelf entry in the main library.

Each bookshelf corresponds to a group of related books, for example, document set, document set kit, or document set subkit. The online project leader organizes the books in the online document set by performing the following operations:

- Determining the number of bookshelves required to organize the document set adequately
- Distributing the books among the defined bookshelves
- Organizing the books within a given bookshelf
- Organizing the bookshelves

Once the online project leader has determined the bookshelf organization, he or she creates each bookshelf file in the format required by the DECwindows Bookreader. An example subset of bookshelf files used for the VMS Document Set is provided in Example 5-1. Note that the file names for each book contain the book's order (2-5-2, or 2-5-2-4) number, as required by online submission procedures.

It is important that the online project leader complete the organization of the online documentation into bookshelves prior to completing the online submission form (see Section 5.4). The release engineer uses this information to create the final bookshelf files and the preliminary product definition form.

After he or she has created the necessary bookshelves, the online project leader examines them using the DECwindows Bookreader. If the bookshelves appear satisfactorily, the online project leader sends them to the release engineer, along with an estimate of the block size requirements for the complete document set.¹

5.4 Fulfilling Administrative Requirements

To process an online document set, the online project leader is responsible for completing the following forms:

¹ In the VMS documentation group, the online project leader must also send the bookshelf files to the document set builder and CMS librarian. The document set builder can help in determining the estimated size of the document set.

Online Project Leader

5.4 Fulfilling Administrative Requirements

Example 5-1 VMS Document Set Bookshelf Files

The primary bookshelf file:

```
BOOK\AA-LA95B-01_A01\Overview of VMS Documentation
SHELF\V52VMS_RELEASE\VMS Version 5.2 Release Documents
SHELF\V52VMS_USER\VMS and VMS DECwindows User Documents
SHELF\V52VMS_GENERAL_USER\VMS General User Extended Set Documents
SHELF\V52VMS_SYSTEM_MANAGEMENT\VMS System Management Extended Set Documents
SHELF\V52VMS_PROGRAMMING\VMS Programming Extended Set Documents
SHELF\VMS_DECW_PROGRAMMING\VMS DECwindows Programming Documents
SHELF\V52VMS_INSTALLATION\VMS Installation and Operations Documents
SHELF\V52VMS_OPTIONAL\VMS Optional Documents
```

The VMS and VMS DECwindows User Documents bookshelf file:

```
BOOK\AA-MG17A-TE\Overview of VMS DECwindows
BOOK\AA-MG18A-TE\VMS DECwindows User's Guide
BOOK\AA-MG19A-TE\VMS DECwindows Desktop Applications Guide
BOOK\AA-LA33B-01_A01\VMS License Management Utility Manual
BOOK\AA-LA00B-01_A01\VMS System Manager's Manual
BOOK\AA-LA98B-01_A01\VMS User's Manual
```

The VMS General User Extended Set Documents bookshelf file:

```
BOOK\AA-LA05A-01_A01\Guide to Using VMS
BOOK\AA-LA11A-01_A01\Guide to Using VMS Command Procedures
BOOK\AA-LA06A-01_A01\Guide to VMS Files and Devices
BOOK\AA-LA13A-01_A01\Guide to VMS Text Processing
BOOK\AA-LA04A-01_A01\Introduction to VMS
BOOK\AA-LA15A-01_A01\VAX DIGITAL Standard Runoff Reference Manual
BOOK\AA-LA16A-01_A01\VAX EDT Reference Manual
BOOK\AA-LA14B-01_A01\VAX Text Processing Utility Manual
BOOK\AA-LA10A-01_A01\VMS DCL Concepts Manual
BOOK\AA-LA12A-01_A01\VMS DCL Dictionary
BOOK\AA-NG62A-01_A01\VMS EVE Reference Manual
BOOK\AA-LA03A-01_A01\VMS Glossary
BOOK\AA-LA07A-01_A01\VMS Mail Utility Manual
BOOK\AA-LA08A-01_A01\VMS Phone Utility Manual
BOOK\AA-LA09A-01_A01\VMS Sort/Merge Utility Manual
BOOK\AA-LA17A-01_A01\VMS System Messages and Recovery Procedures Reference Volume
```

Online submission form

Eight to ten weeks prior to the targeted disc date, the online project leader completes the online submission form and submits it to the release engineer.

To create an online submission form, the online project leader obtains the command procedure **ONLINE.COM** from the release engineer.

Execute **ONLINE.COM**, responding to its queries. By default, it generates an output file named **ONLINE.LIS** in your default directory. Some of the information it requires includes:

- Contact person—the individual (for instance, online project leader) responsible for delivering this book or document set to the release engineer.

5.4 Fulfilling Administrative Requirements

- Targeted disk shipping date—the first customer ship (FCS) date as listed by the online submission program. Enter the number from 1 through 5 that corresponds to the list position of the appropriate date.
- Special instructions—Enter licensing information in this section.

If the document set includes multiple books and bookshelves, perform the following actions:

- Press **Return** to proceed to the next section of the command procedure.
- Select "Edit a file."
- Begin listing each bookshelf composing the document set. List bookshelves you expect are most frequently used first. For each bookshelf:
 - Enter the bookshelf file name.
 - Supply the order number (2-5-2, or 2-5-2-4 number), exact book title, and block size for each book in the bookshelf. Make sure that you list the books in the appropriate order.
- When you are finished editing, exit the file and return to ONLINE.COM.
- Select "Exit this program."

Product Definition Form

The release engineer uses the information supplied in the online submission form to create the product definition form (PDF) required by the SSB. The release engineer sends a copy of the PDF to the online project leader.

The online project leader examines the PDF and verifies the following items:

- Book titles
- Order numbers and file names
- Bookshelf titles and file names
- Organization of bookshelves within the document set
- Organization of books within bookshelves
- Organization of books within the entire CD

Check overall organization of disc library for potential conflicts of bookshelf names.

If information is incorrect, the online project leader notifies the release engineer. Once all information is correct, the online project leader signs off on the PDF. If there are any questions relating to the names or organization of the bookshelves, the online project leader should consult with their product manager of the CD.

5.4 Fulfilling Administrative Requirements

Job Requisition Forms

If Graphic Services has agreed to perform the online proofreading or online builds for the document set, the online project leader ensures that the job requisition forms are submitted to Graphic Services requesting the proofreading for the entire document set.

5.5 Coordinating the Work

For large document sets, the online project leader works with the project editor to coordinate the work of Graphic Services, writers, and editors. This helps prevent work from being lost or forgotten.

- 1** The online project leader ensures that all art work is completed in time for the final online build. If art needs to be converted to RAGS (or UTOX), the online project leader should initiate conversion as soon as possible. If new or revised art is required, the online project leader should ensure that it is submitted as soon as possible.
- 2** The online project leader ensures that proofreading of documents is completed in time for the final online build. The online project leader should meet with Graphics Services to determine the amount of time to complete proofreading; to establish a schedule for submittal of books for proofreading; and to establish a date by when all proofreading comments must be returned to the writing group to be incorporated. The online project leader also works with the writers and editors to ensure that proofreading comments are being incorporated in time for the final online build.
- 3** The online project leader ensures that all documents are meeting final production and final bookbuilding schedules. The online project leader also assists writers and editors to resolve any bookbuilding and Bookreader problems that may impact final production or final bookbuilding schedules.

If a change in the status of a document (due to a bookbuilding problem, a Bookreader problem, or a documentation issue) will result in an impact to the availability of the online document, it is the online project leader's responsibility to contact all concerned personnel. The online project leader should also work with all concerned personnel to resolve the problem.

The online project leader may wish to set up regular status meetings or other update mechanisms to ensure that work is proceeding according to schedule. The regular status meetings would likely include the project editor and representatives from Graphic Services and SSB.

5.6 Providing Books to Release Engineer

Once all books in the document set are built for the final time, the project leader is responsible for the following tasks:¹

¹ In the VMS documentation group, the online project leader notifies the document set builder when all work on all books has been completed. The document set builder then builds the final document set, renames the files appropriately, stages the bookshelves and books, and delivers the files to the release engineer.

5.6 Providing BOOKS to Release Engineer

- Ensure that the final DECW\$BOOK files are renamed from the *lpr*PRO.DECW\$BOOK filename form to the order number form (for example, from 1245PRO.DECW\$BOOK to AA-JT84A-TE.DECW\$BOOK). The renaming needs only to be done on the REDINK system.
- Define the DECW\$BOOK logical to point to the directory in which the online books and bookshelves reside, and run the DECwindows Bookreader. Using the DECwindows Bookreader, perform the following procedures:
 - Verify that the bookshelf files include each book in the document set.
 - Verify that each bookshelf entry calls up the correct book.
 - Verify that each book can be opened.
- Ensure that all DECW\$BOOK files have been transferred to the release directory. The process by which the files are transferred depends upon an arrangement between Graphic Services and the release engineer.

Generally, within Cost Center 32V, the online project leader simply copies final online books and the bookshelf files referencing them to:

```
REDINK: :REDINK$DUA2: [OLPROD .mmmmCD]
```

Certain large document sets, however, may require a backup tape.

Outside of Cost Center 32V, a backup tape is mandatory. Use the following procedure to create and submit the backup tape:

- 1 Obtain two new 2400-foot magtapes.
- 2 On the label, include the following information:
 - Creation date
 - Saveset name
 - Product name
 - Contact person (person who created tape)
- 3 Mount tape on tape drive.
- 4 Log into a privileged account (if necessary)
- 5 Enter the following commands:

```
$ INIT/DENSITY=1600 device-name tape-label
$ MOUNT/FOR device-name
$ BACKUP/VERIFY/LIST=sitegroup.LIS disk:[directory]*.*;* -
_$ device-name:sitegroup.SAV/SAVE_SET
```
- 6 When the backup operation has completed, dismount the tape, using the following command:

```
$ DISMOUNT device-name
```
- 7 Remove tape from tape drive and remove the write ring.
- 8 Print the .LIS file.
- 9 Logout.

5.6 Providing Books to Release Engineer

10 Ship both tapes and a copy of the .LIS file in bubble wrap envelopes to:

Susan Prochaska (or current release engineer)

ZK01-2/F02

Digital Equipment Corporation

110 Spit Brook Road

Nashua, NH 03062-2642

Note: Tapes should be mailed in enough time to arrive at Spit Brook three days prior to the SQM submission date.

- Notify the release engineer that books are available in the release directory, or that a tape is available for restoring.

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