

Gemstar eBook Formatting Standards

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This document outlines the basic formatting techniques and OEB code elements necessary for creating a Gemstar eBook Edition. Elements outlined in the “Overall Project” portion of this document will apply across your entire eBook project, while the others apply to more specific sections of the eBook.

Overall Project.....	2
<body> Tag.....	2
Page Breaks.....	2
Fonts.....	2
Leveraging Code.....	2
Footers.....	2
Running Headers.....	3
Increased Top Margins.....	3
Images.....	4
Device-Specific Formatting.....	4
Frontmatter.....	5
Cover Page.....	5
Title Page.....	5
Copyright Page.....	6
Table of Contents.....	6
Book Body.....	7
Body Text.....	7
Part Page.....	7
Chapter Break Page.....	7
Special Formatting.....	8
Blockquotes.....	8
Multiple Paragraph Blockquotes.....	8
Basic Poems.....	8
Step Poems.....	8
Letters.....	8
Tables.....	9
Glossaries.....	9
Appendix A: Converting Titles from Pixel-Based Standards.....	11
Appendix B: Units of Measurement on Gemstar eBook Devices.....	12
Appendix C: Screen Layout for Color VGA Devices.....	13
Appendix D: Screen Layout for Grayscale Half-VGA Devices.....	14
Appendix E: Special Characters.....	15

Overall Project

<body> Tag

Global margins and widow/orphan control can be included in the overall <body> tag using style sheets. In the style sheet include the following code:

```
body {margin-left:2.0em; margin-right:2.0em; x-sbp-widow-push:2; x-sbp-orphan-pull:1}
```

Use the <body> ... </body> tag as normal to enclose the document. If you are not using an external style sheet, the <body> will need to be defined in this fashion in each OEB file of your project.

Page Breaks

Page breaks are required between each section of a book (cover, title page, chapters, etc.). To include an OEB page break insert the following code in your style sheet:

```
.pagebreak {page-break-before:always}
```

And then use this code wherever you would like a break to occur:

```
<span class="pagebreak"></span>
```

Fonts

eBook devices support four font faces, which are available in a range of sizes:

- *Serif*: The default font, used for all regular body text.
- *Sans-serif*: Often used for section headings and special formatting; default font for all <h1> tags.
- *Monospace*: Characters are evenly spaced, making this a good choice for preformatted tables or text representing computer output.
- *Smallfont*: Unlike the other three, this font is only available in one, very small size. Smallfont does not change sizes between regular and zoom mode, making it particularly useful for the copyright page, endnotes, and running headers.

If no font size is set, text will default to the “x-small” size. Font size should never be set for a book’s body text, but it is often desirable for special formatting, section headings, etc. There are two methods for setting font size:

- *Relative*: Adjusts font size relative to the default size. Therefore, sizes vary between viewing mode (regular and zoom) and device size. Supported values are: xx-small, x-small, small, medium, large, x-large, xx-large. Depending on the current font, some sizes may render identically. Relative font sizes are often used to achieve formatting effects such as dropcaps and smallcaps:
The sign read OPEN NIGHTS. <!-- Small caps -->
Once upon a time... <!-- Drop cap -->
- *Absolute*: Sets font to a specified, fixed size that is unaffected by viewing mode. When using absolute font sizes, always ensure the text flows properly on all devices in all modes. Possible values include 10pt, 12pt, 16pt, etc. To reference an absolute font size, use the following code:
This text will appear in 14pt serif font.

Leveraging Code

When formatting an eBook Edition, the “margin-top” attribute is often used to create the proper spacing above and between elements on a page. This attribute requires another element to “push off”. Use the following code primarily at the top of a new page, or before or after certain elements (such as tables):

```
.pushoff {margin-top:0ex; font-family:smallfont}
```

```
<p class="pushoff">&nbsp;</p>
```

Footers

Footers are often used in the title page (to force the imprint information to the bottom of the page, as it generally appears in print) and for implementing footnotes in the book body. The footer will continue to appear on every subsequent page until it is either replaced with a new footer or “closed”. In the case of the title page, footer code needs to be placed after the page break, but before the leveraging code. Footnote placement can be tricky: place the code before the paragraph containing the reference and test that it flows properly on all devices in both modes.

Alternately, compile all footnotes at the end of the book in a section titled “End Notes” (make sure this section is included in the table of contents).

```
.footer {display:none; display:oeb-page-foot; margin-left:2.0em; margin-right:2.0em}
```

```
<span class="pagebreak"></span>
<div class="footer">
  <!-- ... Content of footer ... -->
</div>
```

```
<!-- Leveraging Code -->
<p class="pushoff">&nbsp;</p>
```

```
<!-- Other page content to appear above footer, if any -->
```

```
<!-- Close Footer -->
<span class="footer"></span>
```

Running Headers

All book sections spanning more than one page in regular or zoom mode require a running header. This includes all chapters, many tables of contents, and optional sections such as acknowledgments. Before deciding a running header is unnecessary, be sure to check that the section in question still remains on one page in zoom mode on both devices. As with footers, headers will continue to appear on each subsequent page until they are replaced or closed. Include the following code in the style sheet:

```
.header {display:none; display:oeb-page-head; margin-left:2.0em; margin-right:2.0em}
.headleft {height:4.0ex; vertical-align:top; text-align:left; font-family:smallfont}
.headright {height:4.0ex; vertical-align:top; text-align:right; font-family:smallfont}
```

Then, following the page break and leveraging code, insert the header (which generally contains the book title and author name):

```
<!-- Leveraging Code -->
<p class="pushoff">&nbsp;</p>
```

```
<!-- Running Header -->
<table class="header" width="100%" cellpadding="0" cellspacing="0">
  <tr>
    <td class="headleft">Book Title</td>
    <td class="headleft">&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;</td>          <!-- Spacer cell -->
    <td class="headright">Author Name</td>
  </tr>
  <tr>
    <td colspan="2" height="10"><hr /></td>    <!-- use these 3 lines if you'd like to -->
    <!-- include an optional hard rule to -->
  </tr>
</table>    <!-- separate the header from the book body -->
```

```
<!-- ... Section Content ... -->
<span class="header"></span>
```

Note: Placing the header content *after* the leveraging code ensures the header will begin on the *following* page. In the previous example dealing with footers, the content was placed *before* the leveraging code to keep the content on the *current* page.

Increased Top Margins

When beginning a new section (e.g., title page, table of contents, or the first page of a chapter), it is helpful to add extra space at the top of the page. This makes it clearer to readers that a new section has begun. For example, at the beginning of a new chapter you might use the following code to leave 25% of the screen height blank above the text “Chapter One”:

```
<!-- New Chapter -->
```

```
<!-- Leveraging Code -->
<p class="pushoff">&nbsp;</p>
```

```
<!-- ... Running header ... -->
```

```
<h3 style="margin-top:25%; margin-bottom:5.5ex; text-align:center">Chapter One</h3>
```

```
<!-- ... Chapter one content ... -->
```

In the case of chapter headings, it is also common practice to provide additional space between the chapter title and the body text.

Images

Must fit within the 472 pixel wide by 590 pixel tall usable screen area

Recommended saved as a .png file

Crop out any external whitespace as it unnecessarily adds to the file size.

Oftentimes original book art will be too big to fit within the 40-pixel margins or and the height limitation of 590 pixels. There are some options for handling such images:

- Proportionally downsize the image to fit into a 392-wide by 590-tall pixel box. First, be sure that the image is in either RGB or Grayscale mode, (not Indexed Color Mode). Be sure not to lose information, such as making already-small text illegible. Re-key in lost text if this is so.
- Change the image from portrait to landscape mode or vice versa such that it will fit.
- Break up the image over more than one page and make references between the pieces to demonstrate they are part of one whole. This is called, “Tiling an Image.”

If information ever gets fuzzy during a resizing, clean it up so that it is crisp, even if this means redrawing lines and re-keying text.

Colors

http://hotwired.lycos.com/webmonkey/reference/color_codes/

Device-Specific Formatting

One of the new features in Professional Publisher 2.0 enables you to target certain formatting elements or content sections to specific devices. This allows much greater flexibility in formatting content for various device sizes.

1. Targeting specific content.

If a title requires drastically different content be created in order for it to display properly on both the Color VGA and Grayscale Half-VGA devices (for example a complex table layout that doesn’t scale well to the smaller screen), you can define separate sections for each device. Simply create two additional style sheets beneath the main one:

```
<!-- Half-VGA Device-specific style sheet -->
<style type="text/x-gemstar-gray-half-vga-css">
  .vga-only {display: none}
  .half-vga-only {display: block}
</style>
<!-- Color VGA Device-specific style sheet -->
<style type="text/x-gemstar-vga-css">
  .vga-only {display: block}
  .half-vga-only {display: none}
</style>
```

Then, using the <div> tag, specify the two versions of the section to be targeted:

```
<div class="vga-only">
  <p class="text">This text will only appear on Color VGA devices.</p>
</div>

<div class="half-vga-only">
  <p class="text">This text will only appear on Grayscale Half-VGA devices.</p>
</div>
```

2. Targeting specific style definitions.

If a title only requires minor variations between the two devices, consider defining separate style classes for each device. For example, if you have a line of text that you would like displayed at 18pt on the Color VGA screen but it doesn’t fit properly on the smaller device, you would use the following code:

```
<!-- Half-VGA Device-specific style sheet -->
```

```
<style type="text/x-gemstar-gray-half-vga-css">
  h1.chaptername {margin-top:10%; text-align:center; font-size:14pt}
</style>
<!-- Color VGA Device-specific style sheet -->
<style type="text/x-gemstar-vga-css">
  h1.chaptername {margin-top:10%; text-align:center; font-size:18pt}
</style>
```

By using the same class name in both definitions, you only need one line of code to display properly on both devices:

```
<h1 class="booktitle">Book Title</h1>
```

The text “Book Title” will appear in 18pt text or 14pt text, depending on the active device.

Frontmatter

Cover Page

The cover page consists solely of the cover image (in .png format), which should appear centered both horizontally and vertically on both devices. This is easily done by placing the image in a table, where the height of the table is dependent on the device size, using the technique discussed in the previous section:

```
<!-- Half-VGA Device-specific style sheet -->
<style type="text/x-gemstar-gray-half-vga-css">
  td.coverpage {width:100%; height:445px; text-align:center; vertical-align:middle}
</style>
<!-- Color VGA Device-specific style sheet -->
<style type="text/x-gemstar-vga-css">
  td.coverpage {width:100%; height:590px; text-align:center; vertical-align:middle}
</style>

<table>
  <tr><td class="coverpage"></td></tr>
</table>
```

To ensure that your image scales appropriately across devices, omit any image width and height information.

Title Page

The title page must contain the book title and author’s name; the imprint is often included as well (placed in a footer to align it with the page bottom):

```
h1.booktitle {margin-top:10%; text-align:center}
h5.author {margin-top:5%; text-align:center}
.imprint {text-align:center; font-size:xx-small}
```

```
<!-- Title Page-->
<span class="pagebreak"></span>

<div class="footer">
  <p class="imprint">Gemstar eBook Group</p>
  <p class="imprint">Redwood City</p>
  <p class="pushoff">&nbsp;</p>
</div>

<!-- Leveraging Code -->
<p class="pushoff">&nbsp;</p>

<h1 class="booktitle">Book Title</h1>
<h5 class="author">Ann Author</h5>

<!-- Close out footer -->
<span class="footer"></span>
```

Copyright Page

In titles with particularly long copyright content, placing the copyright in a footer can cause problems when ported to smaller devices. Therefore, the copyright page is treated similarly to the cover page, placing the content in a table where the height is dependent on the device size. Generally the text is placed in smallfont to help keep the content to one page. Place an empty paragraph in smallfont at the bottom of the copyright information to create a buffer at the page bottom.

```
<!-- Generic style sheet -->
  p.copytext {text-align:center; font-family:smallfont}
<!-- Half-VGA Device-specific style sheet -->
<style type="text/x-gemstar-gray-half-vga-css">
  td.copyright {width:100%; height:445px; text-align:center; vertical-align:bottom}
</style>
<!-- Color VGA Device-specific style sheet -->
<style type="text/x-gemstar-vga-css">
  td.copyright {width:100%; height:590px; text-align:center; vertical-align:bottom}
</style>

<!-- Copyright Page -->
<span class="pagebreak"></span>

<table width="100%">
  <tr><td class="copyright">
    <p class="copytext">All contents copyright &copy; Gemstar eBook Group 2002.</p>
    <p class="pushoff">&nbsp;</p>
  </td></tr>
</table>
```

Table of Contents

The layout of the table of contents will vary from book to book. Some are divided into parts, others are simply a list of chapter numbers. Even if the original print copy does not contain a table of contents, eBook Editions should provide one to allow users an easy way to “page through” the content. Be sure to include the code `<a name="toc"></a>` in all tables of contents; this works with the eBook devices’ built-in functionality to jump to the table of contents from any point while reading a book.

```
.toc_part {margin-top:1.5ex; text-align:center}
.toc_chapter {margin-top:0.5ex; text-align:center; font-size:xx-small}

<!-- Table of Contents -->
<span class="pagebreak"></span>

<!-- Leveraging Code -->
<P class="pushoff">&nbsp;</P>

<!-- Running Header -->
<table class="header" width="100%" cellpadding="0" cellspacing="0">
  <tr>
    <td class="headleft">Book Title</td>
    <td class="headleft">&nbsp;&nbsp;&nbsp;</td>
    <td class="headright">Table of Contents</td>
  </tr>
</table>

<h3 style="margin-top:10%; margin-bottom:2.5ex; text-align:center">Contents</h3>
<a name="toc"></a>

<p class="toc_part"><a href="book.html#part1">PART I</a></p>
<p class="toc_chapter"><a href="book.html#chap01">Chapter 1</a></p>
<p class="toc_chapter"><a href="book.html#chap02">Chapter 2</a></p>
<p class="toc_chapter"><a href="book.html#chap03">Chapter 3</a></p>

<p class="toc_part"><a href="book.html#part2">PART II</a></p>
<p class="toc_chapter"><a href="book.html#chap04">Chapter 4</a></p>
```


Special Formatting

Blockquotes

Blockquotes are set off from the surrounding text by increasing the left and right margins and the space before and after the blockquote:

```
p.blockquote {margin-top:1.5ex; margin-bottom:1.5ex; margin-left:3.5em; margin-right:3.5em}
```

```
<p class="blockquote"><!-- ... Content of the blockquote ... --></p>
```

Multiple Paragraph Blockquotes

The preceding definition for blockquotes will cause awkwardly large spaces should the blockquote consist of more than one paragraph. In these situations, you may want to define three separate styles:

```
p.blockquote_begin {margin-top:1.5ex; margin-left:3.5em; margin-right:3.5em}
```

```
p.blockquote_mid {margin-top:0.5ex; margin-left:3.5em; margin-right:3.5em}
```

```
p.blockquote_end {margin-top:0.5ex; margin-bottom:1.5ex; margin-left:3.5em; margin-right:3.5em}
```

Using these styles in order will create a large space before the quote, the normal amount of spacing within the quote, and a large space below the quote.

```
<p class="blockquote_begin"><!-- ... First paragraph of the blockquote ... --></p>
```

```
<p class="blockquote_mid"><!-- ... Second paragraph of the blockquote ... --></p>
```

```
<p class="blockquote_mid"><!-- ... Third paragraph of the blockquote ... --></p>
```

```
<p class="blockquote_end"><!-- ... Fourth paragraph of the blockquote ... --></p>
```

Basic Poems

For a basic poem where each line has the same left margin, use the following definitions. Whenever an individual line of the poem wraps, the wrapped portion appears slightly indented on the left. This is achieved by setting the margin-left to a larger value than the text-indent and is known as reverse indenting and makes the intended structure of the poem clearer to the reader (particularly in zoom mode when lines tend to wrap more frequently). Like the blockquote, the top and bottom margins are increased around a poem. However, no right margin is set so occurrences of wrapping are minimized.

```
p.poem_begin {margin-top:1.5ex; margin-left:5.0em; text-indent:3.5em}
```

```
p.poem_mid {margin-top:0.5ex; margin-left:5.0em; text-indent:3.5em}
```

```
p.poem_end {margin-top:0.5ex; margin-bottom:1.5ex; margin-left:5.0em; text-indent:3.5em}
```

```
<p class="poem_begin"><!-- ... First line of the poem ... --></p>
```

```
<p class="poem_mid"><!-- ... Second line of the poem ... --></p>
```

```
<p class="poem_mid"><!-- ... Third line of the poem ... --></p>
```

```
<p class="poem_end"><!-- ... Fourth line of the poem ... --></p>
```

Step Poems

Step poems further indent each subsequent line of the poem. This can be easily achieved by defining a separate style for each level of indentation. As with the basic poem, reverse indentation is used:

```
p.poem_step1 {margin-top:1.5ex; margin-left:5.0em; text-indent:3.5em}
```

```
p.poem_step2 {margin-top:0.5ex; margin-left:6.5em; text-indent:5.0em}
```

```
p.poem_step3 {margin-top:0.5ex; margin-left:8.0; text-indent:6.5em}
```

```
p.poem_step4 {margin-top:0.5ex; margin-bottom:1.5ex; margin-left:9.5em; text-indent:8.0em}
```

```
<p class="poem_step1"><!-- ... First line of the step poem ... --></p>
```

```
<p class="poem_step2"><!-- ... Second line of the step poem ... --></p>
```

```
<p class="poem_step3"><!-- ... Third line of the step poem ... --></p>
```

```
<p class="poem_step4"><!-- ... Fourth line of the step poem ... --></p>
```

Letters

The basic letter format is made up of several styles to define the date, greeting, body and closing. Again, letters are set off from the surrounding text with increased space to the left, right, top and bottom:

```
p.letter_date {margin-top:1.5ex; margin-left:3.5em; margin-right:3.5em; text-align:right}
```

```
p.letter_greeting {margin-top:0.5ex; margin-bottom:1ex; margin-left:3.5em; margin-right:3.5em}
```



```
p.letter_body {margin-top:0.5ex; margin-left:3.5em; margin-right:3.5em; text-indent:5.0em}
p.letter_closing {margin-top:1.0ex; margin-bottom:1.5ex; margin-left:3.5em; margin-right:3.5em;
text-align:right}
```

```
<p class="letter_date"><!-- Letter date --></p>
<p class="letter_greeting"><!-- ... Letter greeting ... --></p>
<p class="letter_body"><!-- ... First paragraph of the letter ... --></p>
<p class="letter_body"><!-- ... Second paragraph of the letter ... --></p>
<p class="letter_closing"><!-- ... Letter closing ... --></p>
```

Tables

Some titles involve more complex layouts that require tables. Create a table using standard html tags, with relative widths (percent values) for all columns to ensure the table flows smoothly between devices. Tables are often set off from surrounding text with a “pushoff” paragraph to introduce some white space:

```
<!-- Leveraging Code -->
<p class="pushoff">&nbsp;  </p>

<table width="100%" border="1" cellpadding="3" cellspacing="0">
  <tr>
    <td width="25%" style="font-size:xx-small">&nbsp;  </td>
    <td width="25%" style="text-align:center; font-size:xx-small; font-weight:bold">Monday</td>
    <td width="25%" style="text-align:center; font-size:xx-small; font-weight:bold">Wednesday</td>
    <td width="25%" style="text-align:center; font-size:xx-small; font-weight:bold">Friday</td>
  </tr>

  <tr>
    <td width="25%" style="text-align:right; font-size:xx-small">9:00-11:00</td>
    <td width="25%" style="text-align:center; font-size:xx-small">Sarah</td>
    <td width="25%" style="text-align:center; font-size:xx-small">Lawrence</td>
    <td width="25%" style="text-align:center; font-size:xx-small">Jean</td>
  </tr>

  <tr>
    <td width="25%" style="text-align:right; font-size:xx-small">11:00-1:00</td>
    <td width="25%" style="text-align:center; font-size:xx-small">David</td>
    <td width="25%" style="text-align:center; font-size:xx-small">Alice</td>
    <td width="25%" style="text-align:center; font-size:xx-small">Mary</td>
  </tr>
</table>

<!-- Leveraging Code -->
<p class="pushoff">&nbsp;  </p>
```

Glossaries

An option for handling the glossary list, after laying it out in its own chapter, as above, is to make a “.glos” file of it. What this does is make the glossary terms available for definition dynamically from within the text. There is a “define” function built into the SoftBook that will kick in if a word is defined in this special “.glos” file. So if there is a glossary in a book, go ahead and build a .glos file into the book project as well.

The formatting of the .glos file is very straightforward. In a plain text file, list the term being defined. If it has variations in form (the plural, its acronym, etc.) list these variations next to the term separated by commas. After the term (and its variations, should they exist) is established, do a tab. And after the tab, write the definition. Then hit return and do another term in the same way: term, tab, definition, and carriage return.

Term 1[tab]Definition[carriage return]

Term 2, Alternate Form of Term 2[tab]Definition[carriage return]

Term 3, Plural of Term 3[tab]Definition[carriage return]

Term 4, Plural of Term 4, Acronym of Term 4[tab]Definition[carriage return]

Term 5[tab]Definition[carriage return]

Term 6, Plural of Term 6, Alt. form of Term 6, Acronym of Term 6[tab]Definition[carriage return]And so on...

Save this list as “[book_project_prefix].glos” and add it to the book project as you would a regular HTML file. After it is built into a book, the reader can tap on a word to get its definition to pop up on screen.

Appendix A: Converting Titles from Pixel-Based Standards

The following chart will assist you in updating any conversion processes currently in place to the new Gemstar eBook layout standards:

Element	Pixel-Based Standard (deprecated)	New Enforced Standard
Overall margin-left and margin-right	40px	2.0em
margin-top for body text	6px	0.5ex
text-indent for body text*	+20px or 60px	3.5em
margin-left and margin-right for blockquotes*	+20px or 60px	3.5em
Additional margin and indent widths	80px	5.0em
	100px	6.5em
	120px	8.0em
margin-top and margin-bottom for special sections (block quotes, etc.)	12px or 18px	1.5ex
table width for headers, footers	392px	100% (with left and right margins set to 2.0em)

*All margin-left, margin-right and text-indent values should be absolute em measurements, e.g. “0em”, “3.5em”, etc. Using relative values or percentages (“+4em”, “+0%”, “5%”, etc.) may cause unexpected results.

Appendix B: Units of Measurement on Gemstar eBook Devices

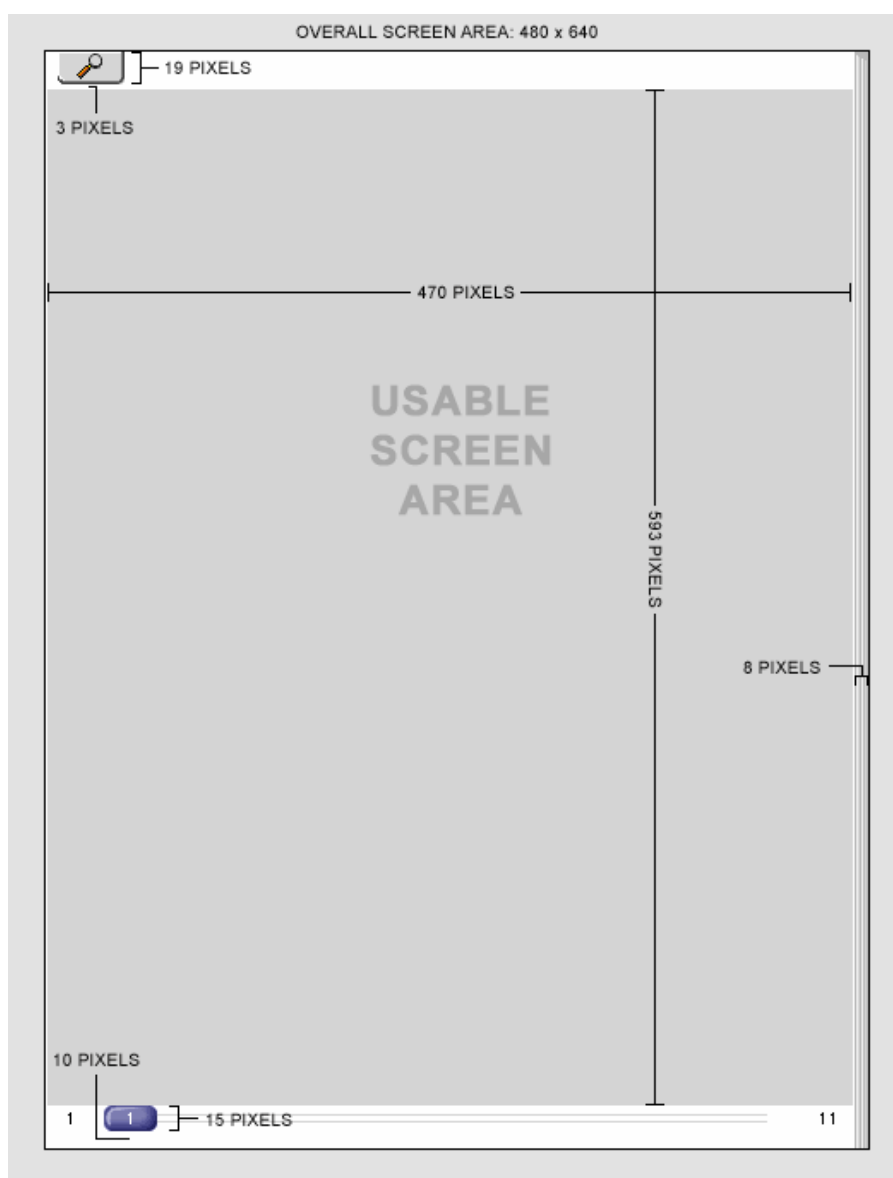
In general, there are four ways to define an element's proportions when formatting a title: em-width, ex-height, pixels, and percentages. At first, differentiating between these units may be confusing, but mastering them will allow you greater flexibility in formatting your eBook Editions effectively across multiple platforms.

	Unit name	Definition	Should be used ...	Should NOT be used ...
Relative	em	Em-width: Equal to the width of a single lowercase m. Dependent on element's font size.	Left and right margins, indents, or other circumstances where the horizontal spacing is relative to the current device's size.	Font or image sizes, vertical elements, or any element that requires fixed proportions across devices.
	ex	Ex-height: Equal to the height of a single lowercase x. Dependent on element's font size.	Top and bottom margins, or other circumstances where the vertical spacing is relative to the current device's size.	Font or image sizes, horizontal elements, or any element that requires fixed proportions across devices.
	%	Percent value: A percentage of the parent element's dimensions.	Widths of tables and individual table cells, or other circumstances where more precision is required to define an element's position or size relative to the space available (for example, an element with a top margin of 50% will always appear halfway down the screen).	Left or right margins, indents, or any element that requires fixed proportions across devices.
Absolute	px	Pixel: The smallest measurable unit for placing elements at a specific location on the device's screen.	Any elements which you want to display identically across devices (for example, a table that should always appear 50 x 50px).	Elements that need to be able to scale across multiple display sizes, such as tables or images larger than 150px in any dimension, margins, or indents.

Appendix C: Screen Layout for Color VGA Devices

The overall screen dimensions for the Color VGA devices are 480 x 640px. However, the usable pixel space for book formatting is slightly smaller due to stock screen elements that appear as navigational aids while reading a book. The total usable space is 470 x 593px. The navigational aids consist of:

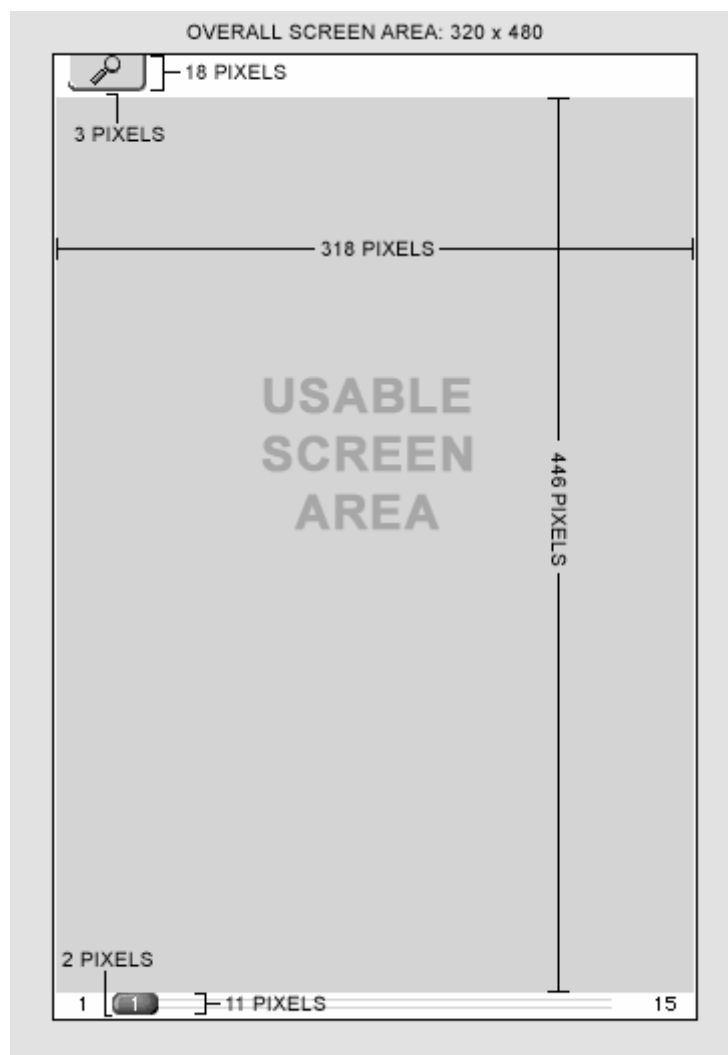
- Search tool (19px tall in top left corner)
- Page-edge graphic (8px wide along right border)
- Page number indicator (15px tall along bottom)



Appendix D: Screen Layout for Grayscale Half-VGA Devices

The overall screen dimensions for the Grayscale Half-VGA devices are 320 x 480px. However, as is the case with the larger devices, the usable pixel space for book formatting is slightly smaller due to navigational aids that appear while reading a book. The total usable space is 319 x 446px. The navigational aids consist of:

- Search tool (18px tall in top left corner)
- Page number indicator (11px tall along bottom)



Appendix E: Special Characters

Special characters should all be translated into their appropriate ISO LATIN code equivalent – either the numeric code, or the letter-based code. For instance, any ampersands need to be converted to “&” throughout a book.

Number Code	Word Code	Description	Character
"	"	quotation mark	"
&	&	ampersand	&
<	<	less-than sign	<
>	>	greater-than sign	>
 	 	non-breaking space	
¡	¡	inverted exclamation	¡
¢	¢	cent sign	¢
£	£	pound sterling	£
¥	¥	yen sign	¥
¦	¦	broken vertical bar	
§	§	section sign	§
¨	¨	umlaut (dieresis)	¨
©	©	copyright	©
ª	ª	feminine ordinal	ª
«	«	left angle quote	«
¬	¬	not sign	¬
­	­	soft hyphen	
®	®	registered trademark	®
¯	¯	macron accent	¯
°	°	degree sign	°
±	±	plus or minus	±
´	´	acute accent	´
µ	µ	micro sign	µ
¶	¶	paragraph sign	¶
·	·	middle dot	·
¸	¸	cedilla	¸
º	º	masculine ordinal	º
»	»	right angle quote	»
¿	¿	inverted question mark	¿
À	À	capital A, grave accent	À
Á	Á	capital A, acute accent	Á
Â	Â	capital A, circumflex accent	Â
Ã	Ã	capital A, tilde	Ã
Ä	Ä	capital A, dieresis or umlaut mark	Ä
Å	Å	capital A, ring	Å
Æ	Æ	capital AE diphthong (ligature)	Æ
Ç	Ç	capital C, cedilla	Ç
È	È	capital E, grave accent	È
É	É	capital E, acute accent	É
Ê	Ê	capital E, circumflex accent	Ê
Ë	Ë	capital E, dieresis or umlaut mark	Ë
Ì	Ì	capital I, grave accent	Ì
Í	Í	capital I, acute accent	Í
Î	Î	capital I, circumflex accent	Î
Ï	Ï	capital I, dieresis or umlaut mark	Ï
Ñ	Ñ	capital N, tilde	Ñ
Ò	Ò	capital O, grave accent	Ò
Ó	Ó	capital O, acute accent	Ó
Ô	Ô	capital O, circumflex accent	Ô

Õ	Õ	capital O, tilde	Õ
Ö	Ö	capital O, dieresis or umlaut mark	Ö
×	×	multiply sign	x
Ø	Ø	capital O, slash	Ø
Ù	Ù	capital U, grave accent	Ù
Ú	Ú	capital U, acute accent	Ú
Û	Û	capital U, circumflex accent	Û
Ü	Ü	capital U, dieresis or umlaut mark	Ü
Ý	Ý	capital Y, acute accent	Ý
ß	ß	small sharp s, German (sz ligature)	ß
à	à	small a, grave accent	à
á	á	small a, acute accent	á
â	â	small a, circumflex accent	â
ã	ã	small a, tilde	ã
ä	ä	small a, dieresis or umlaut mark	ä
å	å	small a, ring	å
æ	æ	small ae diphthong (ligature)	æ
ç	ç	small c, cedilla	ç
è	è	small e, grave accent	è
é	é	small e, acute accent	é
ê	ê	small e, circumflex accent	ê
ë	ë	small e, dieresis or umlaut mark	ë
ì	ì	small i, grave accent	ì
í	í	small i, acute accent	í
î	î	small i, circumflex accent	î
ï	ï	small i, dieresis or umlaut mark	ï
ñ	ñ	small n, tilde	ñ
ò	ò	small o, grave accent	ò
ó	ó	small o, acute accent	ó
ô	ô	small o, circumflex accent	ô
õ	õ	small o, tilde	õ
ö	ö	small o, dieresis or umlaut mark	ö
÷	÷	division sign	÷
ø	ø	small o, slash	ø
ù	ù	small u, grave accent	ù
ú	ú	small u, acute accent	ú
û	û	small u, circumflex accent	û
ü	ü	small u, dieresis or umlaut mark	ü
ý	ý	small y, acute accent	ý
ÿ	ÿ	small y, dieresis or umlaut mark	ÿ
≈	≈	Almost equal	~
˘		Breve	?
Π	Π	Capital Pi	?
ˇ		Caron/Hacek	?
˙		Dot Accent (above)	?
€	€	Euro	€
⁄	⁄	Fraction Slash*	/
≥	≥	Greater Than or Equal To	=
ϖ	ϖ	Greek pi Symbol	?
˝		Double Acute Accent	?
∞	∞	Infinity	8
∫	∫	Integral	?
≤	≤	Less Than or Equal To	=
ﬁ		Ligature fi	?
ﬂ		Ligature fl	?
∏	∏	N-Ary Product	?

