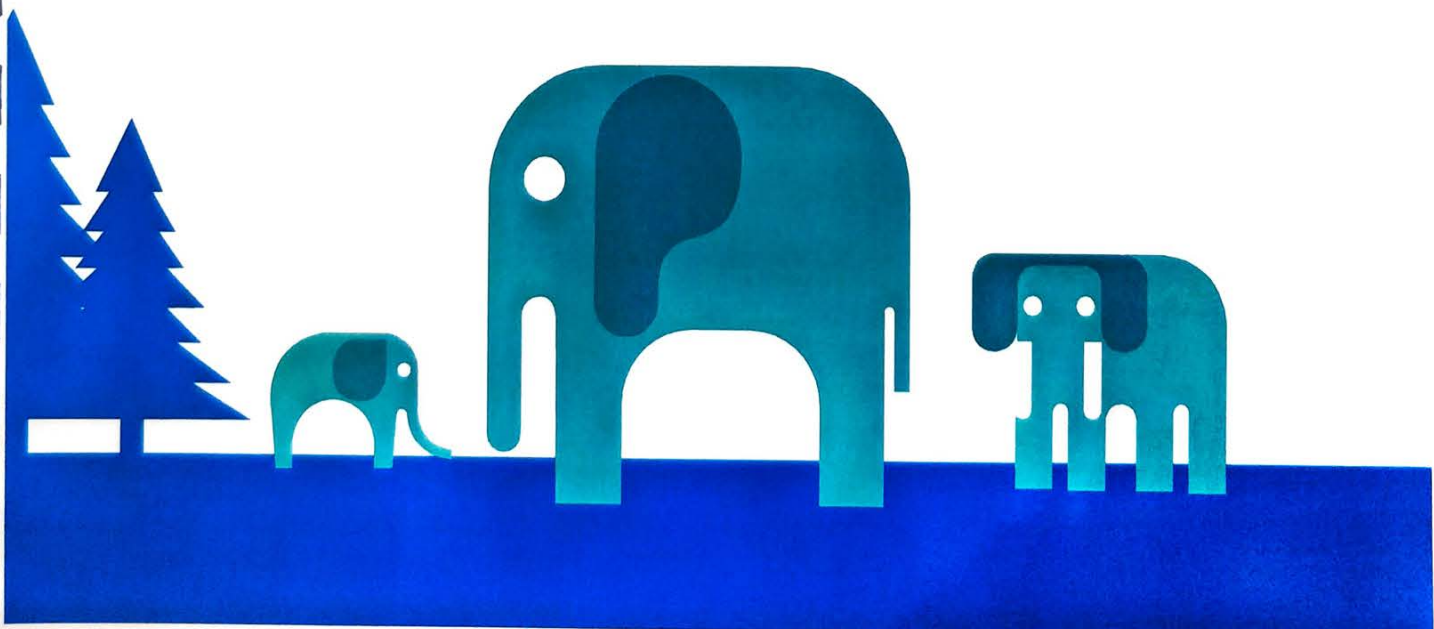




# Technical Writing: An Introduction

Job Aids



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## Audience Analysis

Use the checklists in this section to complete the following tasks:

- Get to Know Your Audience
- Find Out What Your Audience Needs
- Tailor the Information to What Your Audience Needs

Get to Know Your Audience	
	<p>Categorise your audience in the most appropriate way.</p> <p>Example: If categorising in terms of expertise, is your audience an expert, a technician, an executive, or an end user?</p>
	<p>Consider how much prior knowledge your audience has about the product or service.</p> <p>Example: Do they need to know what the next step in the process is, or do they need to be told how to perform the next step?</p>
	<p>Consider your audience's motivation for using the product or service and for reading the content.</p>
	<p>Consider any hurdles that may impact how your audience reads the content.</p> <p>Example: Consider whether your audience's work environment impacts how they consult the content.</p>

### Find Out What Your Audience Needs

To collect quantifiable data, carry out a survey. Include a variety of the following question types:

- Open-Ended  
Example: Is there anything you would like to add?
- Closed  
Example: Have you previously used this software?
- Multiple choice  
Example: What is the capital of Ireland?
  - a) Cork
  - b) Dublin
  - c) Galway
- Ranking  
Example: Please rank the following in order of importance from 1 to 3, where 1 is the most important:
  - Job satisfaction
  - Salary
  - Job security
- Intensity scale  
Example: Please rate your satisfaction with this training by indicating the appropriate scores for each of the following:

	Low		High		
	1	2	3	4	5
The learning objectives were clear.					
The content was structured clearly and logically.					

Consider interviewing a subject matter expert about your audience.

Use social media to monitor the reputation of your company and gain insight into the topics that the market influencers are most concerned about.

Tailor the Information to What Your Audience Needs	
	Summarise the insights you gain from audience analysis in a user profile.
	<p>When building a profile of a typical user, focus on the following types of information:</p> <ul style="list-style-type: none"> <li>• Job title</li> <li>• Level of knowledge</li> <li>• Motivation</li> <li>• Hurdles</li> </ul>
	When creating a persona, include any details that give you a better feel for the audience, such as working environment and attitudes.
	If your content is aimed at more than one user type, create a user profile or persona for each type.



## Information Gathering

Use the checklists in this section to complete the following tasks:

- Build Up Your Subject Matter Knowledge
- Interview the SME
- Test the Content

Build Up Your Subject Matter Knowledge	
	Familiarise yourself with the source information: <ul style="list-style-type: none"><li>• Read high-level information to understand the main concepts.</li><li>• Scan all information to understand the scope.</li></ul>
	Create a hierarchical folder structure to make it easy to locate and track your content.
	To identify the relationship between different pieces of information and establish any gaps in your knowledge, sketch an information map.
	Use the insights from your audience analysis to focus your independent research.
	When taking notes, try the two-column approach, prepare headings in advance, and use drawings and lines to illustrate and connect ideas.

Interview the SME	
	Before interviewing anyone, make sure you are clear about the information you want to elicit from them.
	To avoid 'yes' or 'no' responses, use open questions. Example: How does that work?
	If the goals of the interview include getting the SME to explain something that is particularly detailed, consider recording the interview. Ask for permission to record the interview in advance.
	To get the most out of any interview, use active listening and reflection, instead of focusing on your next question.
	If the SME says something you don't fully understand, check your interpretation: <ul style="list-style-type: none"> <li>• Try restating what you've understood in your own words.</li> <li>• Ask questions that elicit more detail.</li> </ul> Example: Can you elaborate?
	Use your body language and tone of voice to influence the effectiveness of the interview.
	At the end of the interview, ensure that both you and the SME are clear on the next steps in the development of the content.
	To make the most of any interview, review your notes while they are still fresh in your mind. Write a summary of the main points and any action items and share them with the SME.

### Test the Content

	<p>When writing procedures or detailed descriptions of how something works, it is important to test the content to ensure it is accurate.</p>
	<p>Make careful note of anything that does not work as described in the content.</p>
	<p>When testing content, use the insights from your audience analysis to think about the level of detail that the audience needs.</p>
	<p>Look for opportunities to enhance usability for the audience.</p>

## Elements of Structure

Use the checklists in this section to complete the following tasks:

- Make Content Easy to Find
- Make Content Easy to Understand
- Make Content Easy to Read

Make Content Easy to Find	
	Break large blocks of information into manageable chunks. Aim for one chunk per idea.
	Group related chunks of information.
	Eliminate repetition and any unnecessary information.
	<p>When writing headings, use the following guidelines:</p> <ul style="list-style-type: none"> <li>• Use title case for major words, such as nouns and verbs.</li> <li>• Use sentence case for conjunctions, prepositions, definite, and indefinite articles.</li> <li>• Strike a balance between keeping headings as short as possible and indicating the main point of the text.</li> <li>• Ensure all headings are self-explanatory.</li> <li>• Use noun-based headings for explanatory information.</li> <li>• Use verb-based headings for instructions or procedural information.</li> </ul>

## Make Content Easy to Understand

	<p>When presenting information in a list, use the following guidelines:</p> <ul style="list-style-type: none"><li>• Use a bulleted (unordered) list when the order of items is not important.</li><li>• Use a numbered (ordered) list when the order of items is significant.</li><li>• Include an introductory sentence, followed by a colon.</li><li>• Capitalise the first word of each list item, regardless of whether the list item is a complete sentence.</li><li>• Put a full stop at the end of a list item only if it is a complete sentence.</li><li>• Use parallel structure for all items within a list.</li></ul>
	<p>When presenting information in a table, use the following guidelines:</p> <ul style="list-style-type: none"><li>• Present data.</li><li>• Include an introductory sentence (followed by a full stop), table number (followed by a colon), and table caption (in sentence case).</li><li>• Use parallel structure for text in table columns.</li></ul>
	<p>When presenting information in a diagram, use the following guidelines:</p> <ul style="list-style-type: none"><li>• Include an introductory sentence (followed by a full stop), figure number (followed by a colon), and figure caption (in sentence case).</li><li>• Ensure that the diagram you use emphasises the information that you want to highlight.</li><li>• Use 2-D charts instead of 3-D charts because 3-D charts can easily distort data.</li><li>• Use colour sparingly because it is expensive to print and too many colours can be overwhelming.</li></ul>

## Make Content Easy to Read

	Establish a clear hierarchy of fonts and use them consistently throughout your content.
	Use a sans serif font for on-screen text.
	Use bold to emphasise key words, a note, or a caution.
	Use italics to indicate a quote or an expression in another language.
	Use emphasis sparingly and consistently to maintain impact and avoid confusing the audience.

# The Mechanics of Writing

Use the checklists in this section to complete the following tasks:

- Correct Common Sentence Issues
- Use Punctuation Correctly

Correct Common Sentence Issues	
	<p>Correct run-on sentences.</p> <p>A run-on sentence consists of two or more independent clauses connected without an appropriate punctuation mark or conjunction.</p> <p>Example: It is nearly five o'clock, we will not reach home before dark.</p> <p>Revised: It is nearly five o'clock. We will not reach home before dark.</p>
	<p>Correct sentence fragments. A sentence fragment is not a complete sentence because it lacks either a subject or verb, or does not express a complete thought.</p> <p>Example: If there is insufficient memory. Displays a warning message.</p> <p>Revised: If there is insufficient memory, the system displays a warning message.</p>
	<p>Correct subject-verb disagreement.</p> <p>Subject-verb disagreement occurs when a singular subject is used with a plural verb, and vice versa.</p> <p>Example: She walk to the park.</p> <p>Revised: She walks to the park.</p> <p>Collective nouns are treated as a singular subject.</p> <p>Example: The team is here.</p>
	<p>Be consistent in your use of tense. Unnecessary shifts in tense can be confusing for the audience.</p>

## Quick Reference: Sentences

A sentence requires a subject, a finite verb, and appropriate punctuation.

### Adjective

A word that describes a noun or pronoun.

Example: A **tall** building.

### Adverb

A word that describes a verb or adjective.

Example: The train moved **quickly**.

### Clause

A group of related words that contain a subject and a verb. A sentence can contain a single clause or multiple clauses.

An independent clause contains a subject and a finite verb and expresses a complete thought.

Example: If you stay here, **I'll be back**.

A dependent clause contains a subject and a verb, but does not express a complete thought.

Example: **If you stay here**, I'll be back.

### Conjunction

A word that links two parts of a sentence or two words.

Example: Mary **and** Jo went to the shop, **but** they forgot their money.

### Noun

A word that denotes a person, place, or thing.

Example: The **restaurant** is open.

### Object

The object in a sentence is the person or thing acted upon by the subject.

Example: The company hired **two new employees**.

### Pronoun

A word that replaces a noun or noun phrase.

Example: The **children** donated **their** books to a charity.

### Subject

The subject is the who or what carrying out the action. It specifies the topic of the sentence.

Example: Not **all who wander** are lost.

### Verb

A word that expresses an action or a state of being.

Use Punctuation Correctly

When using commas to divide up a sentence, use the following guidelines:

- Use a comma to indicate a pause, to group and separate items, and to divide the structural elements of sentences into meaningful parts.
- Determine how to use the comma in a series of items and be consistent. The serial comma is the comma before the <sup>but/yet</sup> coordinating conjunction in a series of three or more items. Use of the serial comma is optional.
- Use commas around clauses that add non-essential information to a sentence (non-restrictive clauses). ~~that~~ <sup>which</sup>

Example: The company's new style guide, **which will be in use by December 1**, ensures consistency in all documents.

- Do not use commas around information that is essential to the meaning of the sentence (restrictive clauses). <sup>that</sup>

Example: The style guide **that** the company is using is outdated.

Use the apostrophe of possession correctly.

- For singular nouns, form the possessive by adding an apostrophe and an 's'. If a singular noun already ends in 's', either add an apostrophe and an 's' or just an apostrophe. Both are correct.

Example: They produced a digital edition of **Keats's** poetry.

Revised: They produced a digital edition of **Keats'** poetry.

- For plural nouns that end in 's', form the possessive by adding an apostrophe after the 's.'

Example: The **shareholders'** expectations were frustrated.

- For plural nouns that do not end in 's', form the possessive by adding an apostrophe and an 's.'

Example: The product is sold in the **men's** department.

- Never add an apostrophe to possessive pronouns, such as his, hers, ours, your, their, and its.

Example: The company outlined **its** mission statement.

- Never use an apostrophe to make a noun plural.

Example: The two **chairs** cost 300 **euros**.

Use the apostrophe of omission to indicate that letters in a word have been omitted.

Example: **They're** [they are] going to their [possessive pronoun] car, which is over there [indicates place].

## Quick Reference: Punctuation

To be complete, a sentence must be punctuated correctly. An explanation of how to use apostrophes and commas correctly is provided in the **Use Punctuation Correctly** checklist.

### Colon

- Use a colon to introduce explanatory statements.  
Example: The manager didn't make a good start: he outlined the disciplinary action without explaining what had happened.
- Use a colon to introduce a list where the introductory statement is an independent clause.  
Example: The department purchased the following new stationery for its offices: folders, envelopes, and notepads.

### Full Stop

- Use a full stop at the end of a complete sentence.
- If the last word in a sentence is an abbreviation that ends with a full stop, do not add a second full stop at the end of the sentence.  
Example: The system administrator has scheduled the batch run for **7 p.m.**
- Use a full stop in some abbreviations.  
Example: The staff will start on Monday, **Dec. 1** in the new campus.

### Hyphen

- Use a hyphen when forming a single adjective made up of more than one word (compound adjective).  
Example: He provided an **up-to-date** set of figures.
- Do not use a hyphen when the compound adjective comes after a noun.  
Example: The department's figures are up to date.

### Semi-Colon

- Use a semi-colon to join two independent clauses in a sentence when the clauses are too closely related for a full stop.  
Example: Don't capitalise the first word after a semi-colon; always use lowercase.
- Use a semi-colon to separate items in a list when the items are long or complex, or the list items already contain internal commas.  
Example: The milestones for the project are January 31, 2015; October 30, 2015; and January 31, 2016.
- Avoid using semi-colons in technical writing because they can result in lengthy, complicated sentences.

## Characteristics of Good Writing

Use the checklists and procedures in this section to complete the following tasks:

- Structure Content Coherently and Cohesively
- Use Clear and Concise Language

Structure Content Coherently and Cohesively	
	Consider how you can guide your audience by structuring your content logically and clearly beneath headings.
	<p>Use transitional phrases to create cohesive content. When using transitional phrases, use the following guidelines:</p> <ul style="list-style-type: none"> <li>• To support the initial point, use 'and', 'also', or 'in addition'.</li> <li>• To illustrate or expand a point, use 'for example', 'similarly', or 'likewise'.</li> <li>• To summarise or show the effect, use 'therefore', 'so', 'consequently', or 'in short'.</li> <li>• To qualify a point, use 'frequently', 'in particular', or 'in general'.</li> <li>• To reverse or deflect an idea, use 'but', 'however', or 'yet'.</li> <li>• To concede a point, use 'although' or 'whereas'.</li> <li>• To connect a reason to an assertion, use 'because', 'since', or 'for'.</li> </ul>
	To improve understanding and cohesion in your content, start with familiar information and then move to new information.
	<p>To clarify how sentences are connected and how ideas develop, repeat a word from one sentence in the following sentence.</p> <p>Example: The interface consists of five <b>menus</b>. Each <b>menu</b> provides access to different sections of the <b>customer record</b>. Access to each <b>customer record</b> is determined by the login role.</p>

Use Clear and Concise Language	
	Break longer sentences into shorter sentences. Limit each sentence to one idea.
	Make your content clear by translating jargon into plain language.
	Choose short, familiar, and concrete words over long, unfamiliar, and general words.
	Remove bloated language and redundancy.
	<p>Use the active voice. To change content written in the passive voice into the active voice, search for sentences that contain any form of the verb 'to be' ('was', 'am', 'are', 'been', and 'is') and rewrite them so that the subject performs the action.</p> <p>Example: Complex material is organised into content that is easy to understand by technical writers.</p> <p>Revised: Technical writers organise complex material into content that is easy to understand.</p>
	<p>When writing instructive text, start each sentence with the imperative form of the verb.</p> <p>Example: Organise complex material into content that is easy to understand.</p>
	<p>Eliminate noun phrases derived from verbs (nominalisation).</p> <p>Search for words ending in '-ion', '-ment', '-ness', '-tion', and '-ence' and change them back into verbs.</p> <p>Example: The organisation of complex material into content that is easy to understand is the aim of the technical writer.</p> <p>Revised: Technical writers organise complex material into content that is easy to understand.</p>
	<p>At the first instance of an abbreviation or acronym, state the full term and introduce the abbreviation or acronym in parentheses.</p> <p>Use the abbreviation or acronym in subsequent instances.</p>
	<p>Decide on a phrase to convey a basic action and then reuse it throughout your content. Using standard phrasing improves consistency.</p> <p>Example: This chapter describes...</p>
	<p>Break up phrases that contain strings of nouns by replacing them with prepositions.</p> <p>Example: The report refers to two-channel linear pulse code modulation data.</p> <p>Revised: The report refers to modulation data about the linear pulse codes with two channels.</p>



### Procedure: To Enable the Readability Feature in Microsoft Word

All procedures in this booklet are based on using Microsoft Word 2016.

1. From the **File** menu, choose **Options**.
2. In the **Word Options** dialog box, choose **Proofing**.
3. In the **When correcting spelling and grammar in Word** area, select **Check grammar with spelling** and **Show readability statistics**.
4. Choose **OK**.

### Procedure: To View the Readability Score

1. Open your document in Microsoft Word.
2. On the **Review** tab, choose **Spelling & Grammar**.

Once the spelling and grammar has been checked, the readability score displays.



## Style Guides and Templates

Use the checklists and procedures in this section to complete the following tasks:

- Use a Style Guide
- Use a Template

Use a Style Guide	
	<p>If your company does not have a style guide in place, select one to use. Consider the options carefully, and pick a style guide that is suitable for the needs of your company.</p> <p>Example: Think about whether your content should be written in UK or US English. The <i>University of Oxford Style Guide</i> uses UK English, while <i>The Chicago Manual of Style</i> uses US English.</p>
	<p>Consider using one of these approved style and formatting guides:</p> <ul style="list-style-type: none"><li>• <i>The Chicago Manual of Style</i>, 16th edition, University of Chicago Press, 2010</li><li>• <i>The Oxford Guide to Style</i>, 8th edition, Oxford University Press, 2002</li><li>• <i>Microsoft Manual of Style</i>. 4th edition, Microsoft Press, 2012</li></ul>

## Use a Template

	<h2 style="text-align: center;">Use a Template</h2>
	<p>If your company does not use templates, consider creating a template that reflects your style guidelines.</p>
	<p>When creating a template, use the following guidelines:</p> <ul style="list-style-type: none"> <li>• Create a new template from a blank document. If you customise an existing template, it is likely that unwanted formatting could be carried over into your new template.</li> <li>• Build style specifications into your template formatting styles.</li> <li>• Include instructional prompts in your template to guide the writer to create appropriate content at the right level of detail.</li> </ul>
	<p>Once a template is reviewed and approved, provide training to the writers who will use the template.</p>

### Procedure: To Modify a Style Using the Update to Match Selection Option

1. Identify some text that uses the style.
2. Format the text as required.
3. In the **Styles** panel or list, right-click the style and select **Update [style name] to Match Selection**.

### Procedure: To Import Styles from Other Templates

1. Display the **Styles** window (on your keyboard, use the key combination Alt+Ctrl+Shift+S).
2. Choose the **Manage Styles** button.
3. In the **Manage Style** dialog box, choose **Import/Export...**
4. In the **Styles available in** drop-down list on the left-hand side, browse to the current template.
5. In the **Styles available in** drop-down list on the right-hand side, browse to the other template.
6. Select the styles to be copied and choose **Copy**.

Note: Styles can be copied to and from each template.

### Procedure: To Apply the 'Keep with next' Attribute to a Table Caption

1. In the **Styles** panel or list, right-click the style and choose **Modify**.
2. In the **Modify Styles** dialog box, choose **Format**.
3. From the **Format** menu, choose **Paragraph**.
4. On the **Line and Page Breaks** tab, choose **Keep with next** and choose **OK**.

### Procedure: To Display Styles That Are in Use

1. Display the **Styles** window (on your keyboard, use the key combination Alt+Ctrl+Shift+S).
2. Choose **Options...**
3. From the **Select styles to show** drop-down list, select **In use**.

### Procedure: To Ensure the Created Styles Are Not Set to Automatically Update

1. In the **Styles** panel or list, right-click the style and choose **Modify**.
2. At the bottom of the **Modify Styles** dialog box, deselect **Automatically update**.

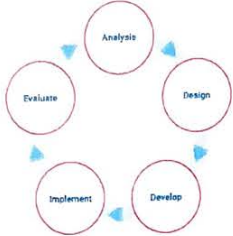
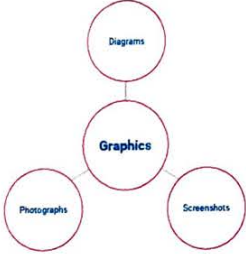
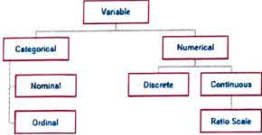
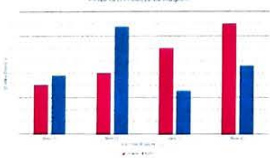
### Procedure: To Add a Table as a Quick Table for Easy Reuse


1. Select the table you wish to use as a Quick Table.
2. In the toolbar, choose **Insert**→**Table**→**Quick Tables**→**Save Selection to Quick Tables Gallery...**
3. In the **Name** field, enter the name of the table.
4. In the **Save in** field, select the current template filename, and choose **OK**.
5. Save your template.

# Graphics

Use the checklists and procedures in this section to complete the following tasks:

- Choose the Right Graphic Type
- Use the Graphic to Best Effect

Choose the Right Graphic Type	
	<p>Flow diagrams are an effective way of illustrating a process. Depending on the process, it can be either linear or circular.</p> <p>Example:</p>  <pre> graph TD     Analyze((Analyze)) --&gt; Design((Design))     Design --&gt; Develop((Develop))     Develop --&gt; Implement((Implement))     Implement --&gt; Evaluate((Evaluate))     Evaluate --&gt; Analyze             </pre>
	<p>Radiating diagrams illustrate the point when various elements merge or split. To illustrate a two-level hierarchy, add a core element.</p> <p>Example:</p>  <pre> graph TD     Graphics((Graphics)) --- Diagrams((Diagrams))     Graphics --- Photographs((Photographs))     Graphics --- Screenshots((Screenshots))             </pre>
	<p>Structure diagrams illustrate the hierarchy of different elements, or how they build on each other.</p> <p>Example:</p>  <pre> graph TD     Variable[Variable] --- Categorical[Categorical]     Variable --- Numerical[Numerical]     Categorical --- Nominal[Nominal]     Categorical --- Ordinal[Ordinal]     Numerical --- Discrete[Discrete]     Numerical --- Continuous[Continuous]     Continuous --- RatioScale[Ratio Scale]             </pre>
	<p>Trend diagrams illustrate how data fluctuates over a period of time.</p> <p>Example:</p> 

	<p>Screenshots are an effective way to explain complex interfaces and behaviour that is difficult to describe in words. When using screenshots, it's important to consider how quickly they will become outdated.</p>
	<p>If using photographs, ensure you comply with copyright law. Gradually build up a library of images to reuse. Consider overlaying elements of your brandings to create a cohesive family of images.</p>
	<p>Illustrations allow us to highlight or omit details to help the audience understand how something works.</p> <p>Example:</p> 

### Use the Graphic to Best Effect

	Create a dedicated graphics folder with sub-folders for different types of graphics.
	Keep source files separate from edited files.
	Use intuitive, descriptive names that specify the content of the graphic.
	If more than one computer or monitor is used to capture screenshots, ensure the display settings and screen resolution on any computers used to capture screenshots are the same.
	In procedural lists, insert the graphic directly after the relevant step.
	In body text, insert the graphic directly after an introductory sentence. If you need to provide any additional information, put it below the graphic.
	To draw the audience's attention to a particular part of a graphic, layer a rectangular box over the graphic.
	To identify several elements within the graphic, consider using numbers in circles layered over the graphic and a table legend below the graphic.