

## Introduction

The purpose of this Style Guide is to facilitate the development of high quality SAE technical papers. In general, the guidelines presented here follow the advice of the [Chicago Manual of Style](#), and in the case of missing or unclear guidelines, defer to that manual.

Essential reading concerning the content of your paper is “How to Write an SAE International Technical Paper” found at <http://volunteers.sae.org/authors.htm>. **Please read this document before proceeding.**

A companion document, the SAE Technical Paper Template<sup>1</sup> provides a starting point for writing SAE papers. The SAE Technical Paper Template can be used for submission of your draft and final manuscripts. The purpose of the template is to guide authors in applying styles to identify or tag each of the document’s elements (an element is defined as anything that needs a style tag applied such as a heading, figure, equation, table title, etc.) as required for digital publishing. In addition, correctly applying the style tags creates a document suitably formatted for the paper review process.

With SAE’s digital publishing process, final formatting of technical papers is the exclusive responsibility of the publisher (SAE). SAE will publish all papers in the classic two column format. SAE’s publishing strategy reflects the dominant popularity of Microsoft Word software. Note: The final manuscript may not look like the final formatted published paper.

This Style Guide is divided into the following sections:

- [Section 1](#), General Guidelines, presents instructions that apply to the entire technical paper.
- [Section 2](#), Sections of an SAE Technical Paper, identifies the mandatory and optional sections that make up an SAE technical paper and provides instructions for each.
- [Section 3](#), Other Elements of an SAE Technical Paper, covers figures, equations, and more.
- [Section 4](#), Styles of the SAE Technical Paper Template, lists the Template styles that are used to tag and format each of the technical paper sections.
- [Appendix A](#), Sample References, contains a table of sample references for a range of source types.
- [Appendix B](#), Color Guidelines.

This Style Guide primarily covers the writing process. Details concerning the next step—the submission and approval process—can be found at <http://volunteers.sae.org/authors.htm>. The site includes an author checklist, a list of Frequently Asked Questions, the Technical Paper Template, and this Style Guide. Frequent updates are likely, so please always check for new versions of these files when beginning a new technical paper. Questions and comments can be emailed to [techpaper@sae.org](mailto:techpaper@sae.org).

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<sup>1</sup> Two versions of the Template are provided: one is a Word 2003 file and the other is a Word 2007 file. Both versions are Word for Windows files, but they also can be opened on Macintosh machines for those using Word 2004 or Word 2008. The Templates are not required, but please make sure an Abstract is present in the final manuscript. Find the Templates at <http://volunteers.sae.org/authors.htm>.

## 1 General Guidelines

<p><b>1.1 Quality Standards</b></p>	<p>All SAE papers should be in review-ready form at the time of submission. The formal review process will determine paper publishability based on the following six Judgment Bases (further details at <a href="http://volunteers.sae.org/volunteers/judgebasis_numdesc.pdf">http://volunteers.sae.org/volunteers/judgebasis_numdesc.pdf</a>):</p> <ul style="list-style-type: none"> <li>• Quality of data and validity of analytical techniques;</li> <li>• Long-term reference value;</li> <li>• Technically new, innovative, or a constructive review;</li> <li>• Professional integrity;</li> <li>• Clear presentation;</li> <li>• Soundness of conclusions.</li> </ul> <p>Papers should be written in an objective, formal, and impersonal style. The body of the text should be organized to reflect natural groupings of information into categories which flow from one to the other. Good headings will naturally evolve from a good technical paper outline.</p>
	<p>SAE does not restrict the number of pages for a technical paper, although the average technical paper has fewer than 12 pages in two-column format. The length of any technical paper should be sufficient to explain the methodology used to obtain the supporting evidence, and sufficient to prove all stated conclusions. The organizer has the authority to instruct the author on the content and quantity of information needed.</p>
<p><b>1.2 Language Considerations</b></p>	<p>Standard rules for written English should be followed in the text of the paper. U.S. or UK rules are acceptable, but either must be applied consistently, not mixed. Standard grammar will ensure that the paper is easily understood by a wide audience including those who do not use English as a primary language. Spell-check and grammar-check software can be used to inspect the written text, but is not a substitute for a thorough review. Review by non-authors fluent in English is one way to check the grammar in the paper, but must be completed prior to the SAE peer-review process. (Official reviewers and organizers cannot be expected to provide this service.) The complexity of the technical subject is never an excuse to avoid following these guidelines. Also, an author's difficulty with technical writing should not be a reason to relax these standards. A good question to ask is, "Would a person unfamiliar with this subject be able to read the paper and understand the general theme?" There are a variety of different editing and translation providers that can help you edit or proof your manuscript.</p> <p>While SAE International does not endorse these vendors, nor do we guarantee acceptance of a submission edited by any of these vendors, we do provide a list of translations services for our authors to use:</p>

	<p>The Charlesworth Group  <a href="http://www.charlesworthauthorservices.com">www.charlesworthauthorservices.com</a>)          American Journal Experts (<a href="https://www.aje.com/en">https://www.aje.com/en</a>)          Editage (<a href="http://www.editage.com">www.editage.com</a>)          International Science Editing  <a href="http://www.internationalscienceediting.com">www.internationalscienceediting.com</a>)          Write Science Right (<a href="http://www.writescienceright.com">www.writescienceright.com</a>)</p>
<p><b>1.3 Examples of Unacceptable Text</b></p>	<p>Editorial comments, such as: “The jet aircraft costs \$5,500,000. This is a substantial sum of money despite the casualness with which million-dollar sums are bandied about these days.”</p> <p>Personal history: “The first military pre-stressing problem that came to my desk was in 1938 in connection with a request from the Army that we increase the displacement of its truck engines.”</p> <p>Unsubstantiated sweeping statements: “I believe I can safely say that practically every failure of a new or retreaded jet tire, where the cause could be ascertained, has proved to be the result of a manufacturing error.”</p> <p>Commercialism or advertising: “Tests on XYZ Corporation’s SuperProduct 1000 have demonstrated the superior quality of our product.”</p>
<p><b>1.4 Units of Measure</b></p>	<p>The long-term goal for SAE is international communication with minimal effort and confusion. Therefore, the use of S.I. units in all technical publications and presentations is preferred. SAE International will strive toward universal usage of S.I. units and will encourage their use whenever appropriate.</p> <p>However, SAE International also recognizes that sectors of the mobility market do not yet use S.I. units because of tradition, regulatory language, or other reasons. Mandating the use of S.I. units in these cases will impede rather than facilitate technical communication. Therefore, it is the policy to allow non-S.I. units and dual dimensioning where communication will be enhanced. This shall not be viewed as an avenue to circumvent the long-term goal of 100 percent S.I. usage.</p>
<p><b>1.5 Tagging/Formatting</b></p>	<p>As mentioned in the Introduction, the SAE Technical Paper Template provides styles to be applied to each element of the technical paper. Applying a style both tags (electronically identifies) and formats the element. Although authors may wish to adjust font and layout characteristics to their liking, this will have no effect on the appearance of the final published paper since final formatting is controlled by SAE’s digital publishing process. SAE will publish all papers in the classic two-column format.</p>

	<p>Details of which SAE Technical Paper Template style to apply to which paper element are presented in the Style Guide, Section 3. Throughout this Guide, square brackets are used to identify Template styles, e.g., [Head1] and [Normal]. For more information about using Microsoft Word styles, please refer to instructions available within the application or at Microsoft internet sites: <a href="http://www.microsoft.com/mac/videos.msp">http://www.microsoft.com/mac/videos.msp</a> for Macintosh Word 2008 and <a href="https://support.office.com/en-us/article/Word-2013-videos-and-tutorials-14807f76-d2b5-44d6-af11-9c880c44e551?ui=en-US&amp;rs=en-US&amp;ad=US">https://support.office.com/en-us/article/Word-2013-videos-and-tutorials-14807f76-d2b5-44d6-af11-9c880c44e551?ui=en-US&amp;rs=en-US&amp;ad=US</a> for Windows Word 2013. Instructions for older Word versions are available as well at Microsoft sites. The use of style tags is useful for two primary reasons. First, a manuscript with style tags applied is easier for a reviewer to follow the flow of the paper during the review process. Second, style tags also assist during the publishing process.</p>
<p><b>1.6 Review Process</b></p>	<p>The review process is a critical part of the SAE technical paper approval process. Reviewers provide constructive feedback to the author so that the paper will have greater acceptance when published. Authors are required to respond to reviewer comments and/or modify the paper as necessary to address reviewer concerns. The final acceptance of the paper is at the discretion of the session organizers who take into account reviewer recommendations both before and after revisions. Further details of the review process are available in the Author Orientation Module at <a href="http://volunteers.sae.org/authors">http://volunteers.sae.org/authors</a>.</p>
<p><b>1.7 Copyright Permission</b></p>	<p>If an author uses material that is directly taken from another source (figures, tables, images, text, facts, equations, etc.), even if the source is another SAE International publication, the author is required to obtain permission to use the material. A reference to the original source of the information must be indicated at the end of the line of text in which the reference is made by sequentially numbering each instance. This (reference) number correlates to complete information about the original source which will be included in the References section at the end of the paper. In addition, images used with permission must include the copyright statement as provided by the copyright owner as part of the caption and must also include a reference number. A Copyright Permission Form for this purpose is located at <a href="http://volunteers.sae.org/authors/copyrightpermission.pdf">http://volunteers.sae.org/authors/copyrightpermission.pdf</a>.</p>

<p><b>1.8 Submitted Files</b></p>	<p>Another point to remember before you even begin your paper is to always go to the SAE website at <a href="http://volunteers.sae.org/authors">http://volunteers.sae.org/authors</a> to download the most recent updated Word template. Please do NOT make changes to the existing style tags or create new tags. Although you may wish to adjust font and layout characteristics to your liking this, however, will have no effect on the appearance of the final published paper since final formatting is controlled by SAE's digital publishing process.</p> <p>Please note that SAE does NOT have a LaTeX template as we do not have or support this software. We suggest that you download the Microsoft Word template and use this as a guide when creating your document in LaTeX.</p> <p>You will be required to upload both your source file (i.e. Word, LaTeX) and the created PDF in MyTechZone. It is critical that your PDF is well-proofed because this file is used for publishing. Also, be sure that your source file and PDF are identical.</p>
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## 2 Sections of an SAE Technical Paper

SAE Technical Papers contain the mandatory and optional sections listed in Table 1. The order in the table is the same as the order of sections in the paper. For each section, the table indicates whether it is mandatory and what Template style should be applied to text in that section. Also included are additional instructions for each section. Further information about the use of Template styles is presented in the Style Guide, Section 5.

Note that all sections except the first 3 include both a *heading* plus text. For example, the fifth section begins with the heading *Introduction* followed by the introductory text. To tag (and format) the section *headings*, apply the [Head1] style. Certain sections (Introduction, Body, Summary/Conclusions, and Appendices) may be structured with subsections—for those, apply [Head2] through [Head4] styles as appropriate. Note also that the Body section does not use the term *Body* as a top-level heading, but rather uses appropriate topical titles for all levels of headings. Finally, it is important to note that the styles to be applied to section *text* vary from section to section—Table 1 specifies the proper text styles to use. For a visual example of the proper layout of paper sections, examine the SAE Template document.

Please note this important detail concerning the paper submission process: Do not add author and affiliation areas when submitting your final manuscripts as this information will be pulled from MyTechZone during the publishing process. Therefore, it is important that the information on [the participant tab in MyTechZone](#) be correct when submitting the final manuscript. For purposes of final publication, MyTechZone is considered the authoritative source for the [author/co-authors](#), [affiliations](#), and [author order](#). In contrast, the submitted paper is the authoritative source for the title and abstract.

Table 1 – Technical Paper Sections, Text Style and Instructions				
Order	Section Name	Mandatory	Text Style	Instructions
1	<b>Paper Number</b>	Yes	[Paper Number]	Papers reviewed and accepted are assigned a paper number, e.g. 2013-01-0661. This final paper number can be retrieved from MyTechZone once the paper has been officially approved for publication by the session organizer. The website will also send an automated email that includes the final paper number. Affix this number to the top of the first page of the paper and apply the [Paper Number] style.
2	<b>Title</b>	Yes	[Title]	The paper title should accurately but briefly describe the focus of the work presented.  All words should be capitalized except: <ul style="list-style-type: none"> <li>articles (a, an, the)</li> <li>prepositions (under, below, among, between, etc.) (with exceptions such as Look <u>Up</u>, Turn <u>Down</u>, <u>On</u> Button)</li> <li>conjunctions (and, but, for, or, nor)</li> <li>the word “to” not only as a preposition, but as part of an infinitive (to Manufacture, to Build, etc.)</li> </ul> The title <b>cannot</b> contain footnotes.
3	<b>Author List (including order) Affiliation</b>	Yes	[Author]  [Affiliation]	The purpose of author listings is to give credit to those who have contributed to the research work. Be sure to include authors who have made a significant contribution to the concept, design, execution or interpretation of the research study. This information, however, should not be included on your final manuscript. <b>Do NOT enter information into this section. Author and affiliation content is pulled from the Participant Tab in MyTechZone.</b>
4	<b>Abstract</b>	Yes	[Normal]	The purpose of the abstract is to enable potential readers to determine whether or not the paper contains material of interest to them. It should include what new data, conclusions, or perspective the reader will find, followed by a brief statement of the significance of this new material. The abstract should be self-contained and coherently independent of the rest of the document. The abstract should be between 250-300 words and cannot contain

Table 1 – Technical Paper Sections, Text Style and Instructions				
Order	Section Name	Mandatory	Text Style	Instructions
				footnotes, figures, tables, or equations.
5	<b>Introduction</b>	Yes	[Normal]	<p>A good introduction:</p> <ul style="list-style-type: none"> <li>describes the overall issue being addressed and why it is important;</li> <li>states the scope and goals of the work;</li> <li>provides background material (including a survey of relevant prior work) to bring the intended audience up to speed;</li> <li>orients the reader by outlining the organizational structure of the paper.</li> </ul>
6	<b>Body</b> (This is the main body of the paper covering measurements, analysis, findings but there is no section specifically titled “Body”.)	Yes	[Normal]	<p>The body of the paper should include a detailed and structured description of the work performed, including (as appropriate) methodology, assumptions, hardware, observations, analysis, and a comparison of results with prior work. The information presented must be self-contained (in the sense that the reader is not assumed to have read prior papers) and provide an appropriate level of detail for the intended audience. Define all terms at first usage and apply them consistently.</p> <p>The body section is not entitled <i>Body</i>. Rather it comprises multiple sections and subsections titled using topical headings in a four-level structure. Template styles [Head1] through [Head4] are used to tag and format titles of the different levels. No specific heading titles are mandated, but common examples include Methods, Results, and Discussion.</p>
7	<b>Summary/ Conclusions</b>	Yes	[Normal]	<p>The summary and/or conclusions are counterparts to the introductory statements: there was a specific problem, an investigation was conducted, these results were obtained, and this is what it means. The section may also suggest future follow-up work. Every technical paper should have a summary, but the nature of the paper may make conclusions inappropriate</p>
8	<b>References</b>	Yes	[List-ordered]	<p>Literature references corresponding to citations in the body of the paper are assembled in the References section in numerical order and tagged/formatted with the [List-Ordered] style. Rules for referencing different types of sources are presented in the Style Guide, Appendix A.</p>

Table 1 – Technical Paper Sections, Text Style and Instructions				
Order	Section Name	Mandatory	Text Style	Instructions
				Instructions for inserting citations into the body of the paper are provided in the Style Guide, Section 3.
9	<b>Contact Information</b>	Yes	[Normal]	Contact details for the <i>main author</i> may include mailing address, email address, and/or telephone number (whichever is deemed appropriate).
10	<b>Acknowledgements</b>	No	[Normal]	Credit can be given here to non-authors who contributed to the work.
11	<b>Definitions/ Abbreviations</b>	No	[Definition Term] and [Definition]	If it will assist the reader, include a list of terms and abbreviations with definitions. The term or abbreviation is tagged with the [Definition Term] style, and the definition text is tagged with the [Definition] style. Do not capitalize the term unless it is an acronym or proper noun.
12	<b>Appendices</b>	No	[Normal]	<p>Any bulk of information that interrupts the flow of thought in the paper would best be placed in an appendix. Examples include large tables, large images, or long mathematical derivations. The reactions of reviewers can be a guide to what interferes with the reader's easy grasp of the paper. Multiple appendices can be included and are titled sequentially as follows: <i>Appendix A: Title, Appendix B: Title, etc.</i></p> <p>Appendices can be structured using the same subsection headings and formatting used in other sections of the paper. When labeling figures, tables, and equations within an appendix, restart the numbering in each appendix and prefix the number with the letter of the appendix, e.g., Figure A7 or Eq. (A1). The appendix is one-column.</p>

### 3 Other Elements of an SAE Technical Paper

#### 3.1 Figures

Controlling the flow of text around figures is now the responsibility of SAE (see Style Guide Section 1). Authors should insert figures and captions inline at the end of the paragraph where the figure(s) is referenced, in a way that enhances readability for the reviewers. The author may also choose to position images at the end of the paper with appropriate captions. Figures are tagged/formatted by applying the [Figure] style of the Template.



Figure 1. This is an example of a figure and figure caption. The sample figure has been sized to 3.5-inches wide which is the recommended size. The caption is 8 point SAE Blue font. The figure and caption is left justified.

SAE technical papers follow the publishing standard for a two-column format. Authors are urged to size their figures for a two-column width (3 ½-inches). If these elements (figures and tables) are such that they cannot be placed in a 3 ½-inch space, it is the author's responsibility to size the image to an acceptable size for reading. When publishing, SAE will make every effort to place the images where located in the author's final submitted PDF. Some differences may occur to achieve minimal white space. It is not SAE's practice to resize, reformat, or touch-up images. Resolution of the images should be at least 300 dots-per-inch at the intended publication size. Any text included in figures should be 8 point.

Each figure should consist of only a single component. If a figure with multiple images is desired, use a graphics/image editor to combine the images, plus all overlays, labels, or notes, into a single image or file before inserting into the paper. This will ensure that components of a figure do not wander when published in different formats. Word's Insert Picture command can be used to insert figures, but make sure to set the Text Wrapping style to *Inline with Text*. Further instructions are available by searching in Microsoft Word Help for *inline picture*.

Each figure must be properly labeled with a caption placed on the line following the figure and tagged/formatted with the [Figure Caption] style. **Do not use Word's Insert TextBox tool. Do not include the caption within the figure/image.** Consecutive figure numbers precede the captions.

SAE can accept many electronic figure formats. Vector-based images (EPS, SVG, WMF) and pixel-based images (TIF, JPG, PNG, BMP, GIF) at a minimum resolution of 300 DPI (dots per inch) are acceptable. SAE recommends that authors provide high quality images whenever available (original image resolution and dimensions). SAE will convert these as necessary for online presentation.

The use of color in figures is encouraged since readers with access to SAE's online publications will be able to view color content and download color PDFs. SAE has refreshed our visual identity to reinforce our position as a global leader. To visually express our brand correctly and consistently we ask that when creating your color graphics that you adhere to our color palette which is described in Appendix B.

Keep in mind that in SAE printed publications, papers will appear in grayscale. For this reason, please be sure that selected colors are distinguishable when converted to grayscale during printing. Alternatively, employ distinct symbols or labels to differentiate data.

### 3.2 Tables

Tables have a title rather than a caption, positioned above the table. The title is prefaced by a table number (e.g., Table 1) and is tagged/formatted using the [Table Title] style. The table itself is

formatted by applying one of Word’s Table Styles. Preferred styles include the following: [Borderless Table], [Borderless Table Center], [Table Grid], and [Table Grid Center]. Borderless styles are useful for situations requiring text alignment. Text within a table should be 8 point.

Table 1. This is an example of a table and table title. For tables, the recommended size is 3.5 inches. The title is 8 point SAE Blue font. The table and table title are left justified.

Displaced volume	1966 cc
Stroke	154 mm
Bore	127.5 mm
Connecting Rod	255 mm
Compression ratio	14.3:1
Number of Valves	4
Exhaust Valve Open	34° BBDC @ 0.15 mm lift
Exhaust Valve Close	6° BTDC @ 0.15 mm lift
Inlet Valve Open	2° BTDC @ 0.15 mm lift

SAE will publish in the classic two-column format. Authors are encouraged to size tables to match the two-column width (3 ½ -inches). (See further sizing information under 3.1 Figures). A table wider than 7 inches can be attached as an Appendix.

**Do not use tabs in a table.** Use borderless tables to properly align text when necessary. **Do not wrap text around tables or images.** If call outs, text boxes, and/or image overlays are necessary in the table, use an image/graphics editor to combine all elements with the table and save everything as a single image before inserting into the paper.

### 3.3 Equations

The preferred method of creating equations is Microsoft Word Equation Editor. Cutting an equation from an alternative equation editor and then pasting as a graphic is also permissible. A final option is to create and paste MathML equations (using MathType for example), an approach that retains the most benefits.

Shown below are examples of equations. **All equations wider than 3.5 inches must be wrapped to the next line as shown in equation (2).**

$$\frac{d\lambda}{dt} = \left[ \frac{\sqrt{1+161\left(\frac{x}{x^+}\right)^2} - 12}{2(A/F)_{st}} - \frac{\sqrt{1+161\left(\frac{x_{prev}}{x^+}\right)^2} - 1}{2(A/F)_{st}} \right] (1 - BGF_{st}) \cdot \frac{12}{(t-t_{prev})} \tag{1}$$

$$\begin{aligned} \Delta K_{aero\_f}(0) = & -\frac{1}{2} \frac{\partial K_f}{\partial W_f} L_{aero\_f} + \dots \\ & + \frac{1}{2l} \left( l_r \frac{\partial F_{aero\_y}}{\partial \beta} + \frac{\partial M_{aero\_z}}{\partial \beta} \right) \left( \frac{l_f}{l_r K_r} - \frac{l}{mV^2} \right) K_f \end{aligned} \tag{2}$$

If necessary, break long equations before an operational sign or a major bracket. If it is necessary to break an equation, do so at an operational sign or major bracket followed by three dots (ellipsis). On the second line of the equation begin by repeating the same operator that you broke after and then align with the first character to the right of the operational sign in the line above it. Enter equations on separate lines and apply the [Equation] style which will center the equations.

Number equations consecutively with the number enclosed in parentheses and following the equation on the same line (right justifying the numbers is not required). Equation numbering continues across the main body sections without restarting, except in appendices (see Style Guide, Section 3). Note that simple equations may be incorporated into the text without numbering.

References to the equations can be abbreviated as follows (except at the beginning of a sentence): Eq. (7). If possible, the typeface and type style of symbols placed in the text should match those of the equations (achieved by applying e.g., [Symbol] or [Emphasis-Italic] styles).

### 3.4 Citations

Citing other work is the standard method of authenticating data, crediting other workers in the field, and guiding the reader to supplementary information. Authors are strongly encouraged to recognize and cite relevant publications outside of their own work and institutions to create more comprehensive manuscripts with greater long-term reference value. Authors should avoid referencing material posted on the internet, unless the material is truly archival, as is the case for most online journals.

In the body of the report, citations are numerically identified using square brackets inserted in the text, as in [1, 2] or [1,2,3]. They are numbered sequentially in the order of first appearance. The citations are resolved as literature references in the References section of the paper, as described in Style Guide Section 2, Table 1.

### 3.5 Page Numbers

Insertion of temporary page numbers in the footer is helpful during the review process. Please remove page numbers before submitting your final manuscript.

### 3.6 Supplementary Multi-Media Content

SAE recognizes the opportunity to include alternative electronic content to support and enhance SAE online technical publications. The list of acceptable content types is evolving, but initially SAE will accept audio/video files in MPG format and Microsoft Excel spreadsheets in native format. For future consideration of other multimedia file types, please send suggestions to [techpaper@sae.org](mailto:techpaper@sae.org).

Note that binary computer programs are not currently acceptable as supplementary content. Note however that text versions of such programs can be included as an attachment. Apply the [Monotype] style to control spacing and character alignment.

All supplementary content should be submitted as an attachment using Microsoft Word's Insert Object tool to insert supplementary files at the end of the technical paper. Be sure to select the *Display as Icon* checkbox. Supplementary attachments require the same peer review as the paper contents. Be sensitive to the file size of the attachment—attach *compressed* files whenever possible.

Supplementary electronic content will not be available in SAE print products and will not exist as independent objects with their own DOI (Digital Object Identifiers). Supplementary electronic content should be chosen only when the material cannot be represented in the paper.

## 4 Styles of the SAE Technical Paper Template

Table 2 presents all the preset styles of the SAE Template and offers instructions for their application when creating an SAE technical paper.

Table 2: SAE Template Styles	
Template Styles	Instructions
[Clear All]	Apply style to selected text to remove formatting and revert back to [Normal] style.
[Affiliation]	Apply style to the author affiliation text.
[Author]	Apply style to the author list.
[Center]	Apply style to center content.
[Definition Term]	Apply style to the definition terms in the Definitions/Abbreviations section of the paper. See also: [Definition] style.
[Definition]	Apply style to the definitions in the Definitions/Abbreviations section. See also: [Definition Term] style.
[Emphasis-Bold]	Apply style to make text bold.
[Emphasis-Bold-Italic]	Apply style to make text bold and italicized
[Emphasis-Italic]	Apply style to make text italicized.
[Emphasis-Underline]	Apply style to underline text.
[Equation]	Apply style to each equation line (including the equation number). See also: Equations in Style Guide Section 3.3.
[Figure]	Apply style to each figure to center and align it with the figure caption. See also: [Figure Caption] style.
[Figure Caption]	Apply style to center (and tag) each figure caption. As stated in Style Guide Section 3.1, figure captions must be separate from the figures (not combined) and must <b>not</b> be inserted using Word's Insert Text Box or Insert Caption tools.
[Footnote Reference]	Apply style to the footnote reference <i>numbers</i> , both in the paper body and in the actual footnote. Footnotes may be inserted using Word's Insert Footnote tool which takes care of sequential numbering as well as automatic application of the two footnote styles, [Footnote Reference] and [Footnote Text].
[Footnote Text]	Apply style to the footnote <i>text</i> (but not to the footnote reference number to the left of the text). Footnotes may be inserted using Word's Insert Footnote tool which takes care of sequential numbering as well as automatic application of the two footnote styles, [Footnote Reference] and [Footnote Text].
[Head1]	Apply style to all first level headings (as specified in Style Guide Section 2). Head 1 is 12 pt., initial Caps, Bold
[Head2]	Apply style to all second level headings. Head 2 is 11 pt., Initial Caps, Bold Italic
[Head3]	Apply style to all third level headings. Head 3 is 10 pt., Initial Caps, Bold
[Head4]	Apply style to all fourth level headings. Head 4 is 9 pt., Initial Caps, Bold, Italic

<b>Table 2: SAE Template Styles</b>	
<b>Template Styles</b>	<b>Instructions</b>
[List-Ordered-Numeric]	Apply style to text to create a numbered list. This style is also applied to the Reference section.
[List-Unordered]	Apply style to create a bulleted list.
[Monotype]	Apply style to make text monospaced. This style is commonly used to display computer programs or their output.
[Normal]	The default font, used by the [Normal] style, is 9 point Regular. Apply [Normal] style to any text not assigned another style. When text is pasted into the paper from another document, apply the [Normal] style. Once all text is in [Normal] style, apply appropriate heading, emphasis, list styles, etc.
[Normal Table Text]	Apply style to format text in a table. This will apply the required font size to the text.
[Paper Number]	Apply style to the SAE Paper Number.
[Subscript-Italic]	Apply style to make text subscripted and italicized.
[Subscript]	Apply style to make text subscripted.
[Superscript-Italic]	Apply style to make text superscripted and italicized.
[Superscript]	Apply style to make text superscripted.
[Symbol]	Apply style to convert text to the Symbol font. A selection of symbols is available in the TimesNewRoman character set—use that font preferentially if it contains the desired symbol. Note also that Word’s Insert Symbol tool can be used to place symbol characters, but be sure to select only Symbol or TimesNewRoman font in the process. Therefore, this style tag only needs to be applied if the symbol you want is not available within the TimesNewRoman font.
[Table Title]	Apply style to the table title text. See also: Style Guide Section 3.2.
[Table Note Reference]	Apply style to the reference <i>number</i> of any reference note associated with a table. As with the [Footnote Reference] style, the [Table Note Reference] style is applied to the reference number positioned in the table body as well as to the reference number to the left of the reference text positioned below the table. See also: Style Guide, Section 4.
[Table Note Text]	Apply style to any reference <i>note</i> associated with a table. See also: Style Guide, Section 3.4.
[Title]	Apply style to the paper title.

## Appendix A: Sample References

SAE's publications team is committed to listening to and acting upon the concerns of our contributors. Over the past few years, we've received feedback from technical paper authors who have expressed a need and desire of being cited in recognized impactful journals— this has led to SAE's publication of scholarly journals. One important aspect of our journals' evaluation for indexing and impact factor is to have proper and consistent citations. We continue to improve the consistency and proper citation of SAE publications, and we provide author tools for ease of downloading these citations for inclusion in future works.

It is our intent to publish quality, impactful, highly cited technical research; to that end, we encourage you to review and follow the rules and guidelines set forth in the reference listing.

Table A1 provides samples to illustrate the proper presentation of references for a variety of sources. If available, please include the DOI (Digital Object Identifier) for **all** online references—they will enable readers of online publications to locate reference material efficiently. To find the DOI associated with a reference, use the free search feature at <http://www.crossref.org/questquery/> (All SAE published papers are assigned a DOI – doi:10/4271/20xx-01-xxxx).

**Properly formatted citations for SAE Technical papers can be found and copied from the SAE website at [www.sae.org](http://www.sae.org). Enter the paper number in the Search field to locate the paper, then click on title to be directed to the page with the citation.**

<b>Reference type</b>	<b>Sample</b>
SAE Technical Paper	Otsuki, S., Oie, T., and Ishida, K., "Hydrocarbons Speciation of Automotive Emissions Using High Speed Gas Chromatography," SAE Technical Paper 950513, 1995, doi: <a href="https://doi.org/10.4271/950513">10.4271/950513</a> .
Non-SAE Conference paper with no paper number or DOI	Saha, P., Pan, J., and Veen, J., "Thoughts Behind Developing a Small Reverberation Room-Based Sound Absorption Test Method for the Automotive Industry," presented at NOISE-CON 2008, USA, July 28-31, 2008.
SAE Journal article with DOI	Antanaitis, D., Monsere, P., and Riefe, M., "Brake System and Subsystem Design Considerations for Race Track and High Energy Usage Based on Fade Limits," <i>SAE Int. J. Passeng. Cars - Mech. Sys.</i> 1(1):689-708, 2008, doi: <a href="https://doi.org/10.4271/2008-01-0817">10.4271/2008-01-0817</a> .
Non-SAE Journal article with DOI	Miles, P., Collin, R., Hildingsson, L., Hultqvist, A. et al., "Combined Measurements of Flow Structure, Partially Oxidized Fuel, and Soot in a High-Speed, Direct-Injection Diesel Engine," <i>Proceedings of the Combustion Institute</i> 31(2):2963-2970, 2007, doi: <a href="https://doi.org/10.1016/j.proci.2006.07.231">10.1016/j.proci.2006.07.231</a> .
Presentation	Alger, T., "SwRI's HEDGE™ Concept – High-Efficiency Dilute Gasoline Engines for Automotive, Medium Duty, and Off-Road Applications," Panel Presentation at SAE International 2009 Powertrains, Fuels, and Lubricants Meeting, Nov. 2009.
Magazine articles	Veen, J., Pan, J., and Saha, P., "Standardized Test Procedures for Small Reverberation Room," <i>Sound and Vibration</i> : 18-20, Dec. 2005.
Standards	SAE International Surface Vehicle Recommended Practice, "Laboratory Measurement of the Composite Vibration Damping Properties of Material on a Supporting Steel Bar," SAE Standard J1637, Rev. Aug. 2007.

<b>Table A1 - Reference formatting samples</b>	
<b>Reference type</b>	<b>Sample</b>
Book	Richards, P., "Automotive Fuels Reference Book, Third Edition," (Warrendale, SAE International, 2014), 69-73, doi:10.4271/R-297. NOTE: If no doi is available insert ISBN number in its place.
Personal communication	Smith, R., General Motors Corporation, personal communication, Feb. 2007.
Patent	Wilkinson, J., "Nonlinear Resonant Circuit Devices," U.S. Patent 3,624,124, July 16, 1990.
Internet reference	SAE International, "UNS on the Web; Metals and Alloys in the Unified Numbering System," <a href="http://www.sae.org/uns">http://www.sae.org/uns</a> , accessed Aug. 2009.
Thesis/Dissertation	Mathuria, P., "Transfer Path Analysis of Diesel Engine Noise Using Statistical Energy Analysis," Ph.D. thesis, Mechanical Engineering Department, Indian Institute of Technology, Bombay, 2000.
Software	The Interactive Tester (Version 4.0), Computer Software, Psytek Services, Westminster, CA, 1993.
CD-ROM	Acoustics Testing Laboratory of the NASA Glenn Research Center (Distributor), Auditory Demonstrations II: Challenges in Speech Communication and Music Listening, CD-ROM available from the NASA Glenn Research Center Acoustical Testing Laboratory 04 from <a href="http://acousticaltest.grc.nasa.gov">http://acousticaltest.grc.nasa.gov</a> , Dec. 2003.
Video	SAE International, "How Does SAE World Congress Enable Industry Networking and Relationship-Building?," SAE Video 10943, accessed Nov. 11, 2011.

## Appendix B: Color Guidelines

### COLOR

#### Color Palette

Our color palette is contemporary and vibrant, reflecting our energy and enthusiasm. It's a mix of warm and cool hues that work universally across our design system.

The palette consists of seven colors—two from our logo—supplemented by white, three grays and black.

These are the only colors used. Do not add colors to our palette.

#### Color-Pairing Strategy

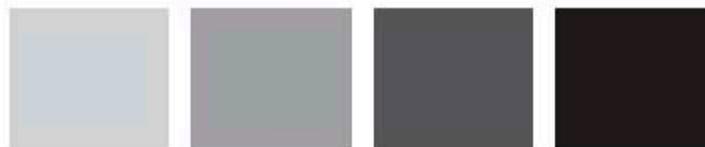
Each color, whether warm or cool, has a dark variation and a lighter counterpart. They are generally paired together in this manner.

While our colors work harmoniously, pairings must be analogous, such as a yellow background used with an orange (or white) headline and subheads.

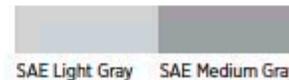
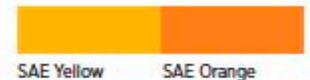
Non-analogous pairings should never be used, for instance, pairing a yellow background with green or blue text.

The lighter color is always used as the background color. This creates the correct staging color for the Supergraphic in its analogous color variation.

#### Color Palette



#### Color Pairings



# SAE International Technical Paper Style Guide

## COLOR

### Color Specifications

All colors in the SAE color palette have precise color references, shown in the specifications charts on this page.

Always use the exact color values listed, which correspond to the medium being employed. Don't use color references or values from files that have been converted automatically between color modes.

Some software programs don't always make color conversions that are equal to the specific color values listed in the palette specifications. Slight variances in color may occur when printed through different processes or reproduced in different media.

Color	Spot Color*	CMYK	RGB
 SAE Blue	Pantone 2925 C/U	86/8/0/0	1/160/233
 SAE Dark Blue	Pantone 301 C/U	100/60/4/19	0/81/149
 SAE Light Green	Pantone 361 C/U	69/0/97/0	46/177/53
 SAE Dark Green	Pantone 348 C/U	100/2/100/10	0/119/61
 SAE Yellow	Pantone 130 C/U	0/31/95/0	255/178/1
 SAE Orange	Pantone 158 C/U	0/62/95/0	234/113/37
 SAE Red	Pantone 485 C/U	0/95/100/0	220/41/30
 SAE Light Gray	Pantone Cool Gray 3 C/U	0/0/0/20	202/202/200
 SAE Medium Gray	Pantone Cool Gray 7 C/U	0/0/0/45	154/155/157
 SAE Dark Gray	Pantone Cool Gray 10 C/U	0/0/0/80	97/98/101
 White	NA	0/0/0/0	255/255/255
 SAE Black	Black C/U	0/0/0/100	0/0/0

#### \*Pantone Colors

In lieu of the color(s) listed on this page, you may use the PANTONE® colors cited, the standards for which can be found in the current edition of the PANTONE® formula guide. The colors shown throughout these guidelines have not been evaluated by Pantone, Inc. for accuracy and may not match the PANTONE® Color Standards. Consult current PANTONE® Publications for accurate color. PANTONE® is the property of Pantone, Inc.