## MWSUG 2025 - Paper PO-011

# ExCITE-ing! Build Your Paper's Reference Section Programmatically Using Lex Jansen's Website and SAS®

Louise Hadden, Independent Consultant

## **ABSTRACT**

One challenge in writing a SAS® White Paper is creating the perfect reference section, properly acknowledging those who have inspired and paved the way. Luckily, clever use of such tools as Lex Jansen's website, SAS's ability to read in and manipulate varied data sources, and Microsoft Word citation manager, every author can succeed in proper referencing in their white papers. This paper and ePoster will demonstrate how to accomplish this goal.

## INTRODUCTION

The importance of properly citing reference material in a publication cannot be understated. Citation serves a number of purposes: it tells viewers where information can be found and consulted for additional information; it gives appropriate credit to the persons whose words, concepts, and data you are using; and protects you from plagiarism and the risk of having your own research and products invalidated for misusing others' works. PharmaSUG and other groups require that all published work cited in your paper must be listed in a REFERENCES section. This includes both text and visuals (graphics). Special consideration needs to be employed for copyrighted materials in accordance with whether you have permission from the copyright or publisher to use the material, either by direct reprint or paraphrasing.

Please note that this paper is specific to SAS White Papers. If you are writing an article for a journal or another organization (APHA, etc.) there will be very specific (and often conflicting from organization to organization) instructions on preparing your works, with regard to how multiple authors are listed, citations, figure and table placements, fonts, and a wealth of other details. The research presented for this paper will inform creation of a tool set for creating reference sections for other types of publications programmatically.

This paper and ePoster are suitable for all skill levels, industries, and job roles. Viewers will gain an understanding of the importance and complexity of proper citations in reference sections as well as resources and tools to help create a robust reference section.

## WHAT DOES A SAS WHITE PAPER REFERENCE SECTION LOOK LIKE?

There are thousands of SAS white papers published, and many of them have excellent reference sections that can be mined both for content and format. However, there are easier ways than Googling, reading, and copying relevant citations by hand.

# SAS USER GROUP MICROSOFT WORD TEMPLATES

You need not search high and low to find some fantastic instructions for reference sections — detailed instructions can be located in the Word Template provided in Presenter Resources for this conference. If you have not looked at the template recently, it is worth a second look as it has been updated for newer versions of Microsoft Word, and for different data sources. It is very tempting to use one of your old papers, or someone else's, as a model, but as the materials being cited evolve, it is worth at least pasting in the reference section of the Word template for up-to-date models. An important exception is the citation of AI materials, which is covered in this paper. A screenshot of the Reference Section of the Word template for this conference is provided below:

#### REFERENCES

This section is not required. If you include this section, do not change the heading style or the text "REFERENCES" of the preceding heading.

The following references are examples and do not cover the spectrum of references that might be included. The important thing is to be consistent in formatting and organizing your references. If you prefer, you can follow a bibliographic approach such as the American Psychological Association (<a href="http://www.apastyle.org/manual/index.aspx">http://www.apastyle.org/manual/index.aspx</a>) or the American Statistical Association (<a href="http://amstat.tfjournals.com/asa-style-guide/">http://amstat.tfjournals.com/asa-style-guide/</a>).

This is the format for references if you use the author-date format, in which citations are inserted in parentheses in text, such as (Smith 2014) or (Smith, 2014; Doe and Johnson, 2016). If the same author has several references, use a, b, c, and so on. For example, (SAS Institute Inc. 2015a, 2016b, and 2016c).

Book <Author name: last name, first name (or initials)>. <Publication date>. <Book title>. <City, State (abbrev) of publication> : <Publisher name>.

Journal article <Author name: last name, first name>. <Publication date>. "<Article title>." <Journal title>, <volume no.;page numbers>.

Article in conference proceedings <a href="Article title">Article in conference proceedings</a> <a href="Article title">Article title</a>." <a href="Article titl

Website <Author name: last name, first name>. "<Title>." <Source>. <Date>. Available at <URL>.

Reference examples:

Book Agresti, A. 2013. Categorical Data Analysis. 3rd ed. Hoboken, NJ: John Wiley & Sons.

Journal article Akaike, H. 1979. "A Bayesian Extension of the Minimum AIC Procedure of Autoregressive Model Fitting." *Biometrika*, 66:237–242.

Article in conference proceedings Dorfman, A. H. and R. Valliant. 1993. "Quantile Variance Estimators in Complex Surveys." *Proceedings of the Survey Research Methods Section*, 866–871. Alexandria, VA: American Statistical Association.

Website Federal Reserve Bank of St. Louis. 2012. "Economic Research." Accessed November 7, 2012. http://research.stlouisfed.org.

#### Figure 1. PharmaSUG 2025 Word Template

Items shaded in beige should be removed prior to paper submission. These notes provide the user with instructions for certain types of citations, except for Al Resources discussed below. It is not comprehensive but provides instructions for most types of documents.

#### ADDITIONAL NOTE ON CITING AI RESOURCES

In addition to the References Section from the Word template provided above, if you are using Al resources such as ChatGPT, you can use either APA or MLA style. Al resources are not necessarily retrievable, so should be treated as personal communications which cannot be reproduced. References to Al resources contained within the body of the paper should include the Al Provider (i.e., OpenAl) and the reference date. Full citations in a reference list should also include a description of the prompt and the URL of the Al platform. You can prompt the Al that you are using to provide you with a citation in the appropriate format to make it easy, but provided below are examples of two of the formats that SAS papers customarily accept based on the author's guery to Open Al.

In-text Example :APA guideline

When prompted with "How many SAS software papers published in 2024 mentioned ChatGPT?" the ChatGPT-generated text provided several detailed citations, primarily at PharmaSUG 2024 and 2025. (Open AI, 2025).

Reference: APA guideline

(Open AI, 2025). Response generated by ChatGPT (GPT-4.5-turbo) in response to user query about SAS software papers mentioning ChatGPT. Retrieved from <a href="https://chat.openai.com">https://chat.openai.com</a>.

In-text Example: MLA format

When prompted with "How many SAS software papers published in 2024 mentioned ChatGPT?" the ChatGPT-generated text provided several detailed citations, primarily at PharmaSUG 2024 and 2025. (OpenAI).

Reference: MLA format

OpenAl. *ChatGPT* (GPT-4.5-turbo). Response to a query about SAS Software papers mentioning ChatGPT. 18 May 2025. *ChatGPT*, https://chat.openai.com/.

## ADDITIONAL RESOURCES FOR HOW-TOS ON CITATIONS

SAS User Group templates and advice on citing AI resources used are not inclusive of other types of writing and may be out of date due to ongoing changes in technology and what needs to be cited – the concept of digital copyrights is fluid at this point. Listed below are several other resources that may be helpful in writing your SAS white paper.

## **SAS Editorial Guidelines**

SAS publishes Editorial Guidelines which are updated on a regular basis. These guidelines mostly cover how SAS's copyrighted information should be treated, but do not comprise a full set of citation rules. Note that you ALWAYS need to consult the guidelines your university, your employer, or potential publisher have set forth.

https://www.sas.com/content/dam/SAS/documents/legal-employee-services/legal/editorial-guidelines.pdf

# **Commonly Used Instruction Sets for Citations**

Citation guidelines in SAS white papers include both in-text citations (brief parenthetical mentions of the resource) within the paper and a stylized, more complete references section at the end, as noted above in the section on AI citations. Using these guidelines ensures that all resources are properly credited and viewers can find the details on cited information. Most used instruction sets are APA (American Psychological Association), MLA (Modern Language Association), and Chicago/Turabian (used in business, history, fine arts, etc. – not necessarily relevant for SAS White Papers.) The SAS User Group Word template states that SAS authors may use the APA or MLA systems.

## **Microsoft Word Citation Management**

The process of writing SAS papers has evolved in strange and wonderful ways since my first SAS paper in two column format and just a few indications of the structured Word templates we have now. We have the editor, we have anti-plagiarism tools, we can edit document properties, etc.

## **ANTI-Plagiarism Tools**

It may seem like all the citation rules are overkill, but having the framework in place does establish your credibility and reliability of your work. Another aspect of this is avoiding plagiarism – which is hard to do with SAS white papers, where we all learn from one another. There are number of anti-plagiarism tools available in both software and website forms. These tools and sites work by comparing texts in your work with texts in large online databases. Some popular options include: Scribbr, Grammarly, Copyleaks, Quillbot, iThenticate, DupliCheckr, and PlagScan. At the very least, Microsoft Word Users can access the built-in editor to "Check for similarity to online sources."

In addition to protecting yourself from inadvertently using others' work, you can protect your own papers by securing your PDFs with Adobe, and/or opening your word document and editing your properties (metadata) of your Word or PDF documents. The important thing with metadata is to add keywords in the Tag section so that your paper can be recognized when people search for a given topic or element in papers, on Lex Jansen's web site described below, or elsewhere. Search engines read the tags.

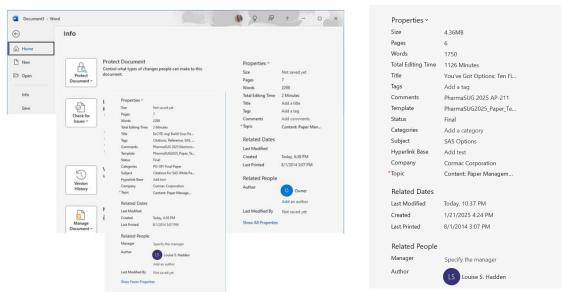


Figure 2. Entering Paper Metadata in MS Word and PDF

## LEXJANSEN.COM

Lex Jansen's web page LexJansen.com is my primary go-to with any SAS question or problem I may have – there are many other resources, Google, listservs, SAS communities, friends – but Lex's site is particularly convenient, with several different pages with different functionalities. Lex is a former SAS employee, and many years ago undertook the collection of proceedings from SAS User Group and other related conferences, including scanning by hand for earlier years. It is a mammoth undertaking and is constantly being nurtured with the yearly influx of new SAS white papers, some, including this paper, describing this history in the making.

Early in my SAS career, I was introduced to Lex and his efforts, and his website and sascommunity.org, a wiki-based website, and they became my primary sources of SAS information. A decade ago, I asked Lex if he would be willing to add XML as an output destination to save searches, et voila, XML happened, and JSON was not far behind. This paper and e-poster will discuss using saved search results and creating a reference section for SAS white papers electronically, but Lex's site can entertain several other use cases, such as topic frequency analyses (Hughes, Proceedings of WUSS 2023).

## MAP OF PAGES ON LEXJANSEN.COM



Figure 3. Word Cloud on Lex Jansen's Web Page

# **Top Level**

The main page of Lex Jansen's conference proceedings site provides you with a Google enhanced search field looking at over 38,840 SAS white papers and counting, user group level selections, selected author bibliographies and more! https://www.lexjansen.com/



Figure 4. Lex Jansen's Top-Level Page

#### **SAS Search**

At the top right of the main page, clicking on the "perform a search" link will bring you to the SAS search page. Here, you can see individual user group pages (also seen on the main page), and you can search by title/keywords and/or author(s).

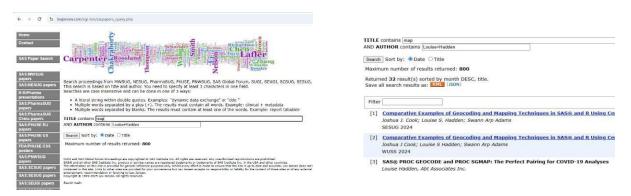


Figure 5. Lex Jansen's SAS Search Page

The results of a search are shown above right – I have 32 papers with the keyword maps in the title. Note that you can save the search results as XML or JSON with a simple click. You can also click on any of the papers listed to download them individually or right click and save the link for later use. XML and JSON downloads will be explored later. https://www.lexjansen.com/cgi-bin/saspapers\_query.php

## **USER GROUP LEVEL (I.E. PHARMASUG)**

You can reach this level from the main page or the SAS search page by clicking on one of the User Group selections, in this case PharmaSUG. https://www.lexjansen.com/pharmasug/

```
Conference Proceedings: Pharmacutical Software Users Group 2024

May 19-22, 2024, Baltimore, Maryland, 206 papers

PharmaSUG 2024 PharmaSUG 2029 PharmaSUG 2022 PharmaSUG 2020 PharmaSUG 2016

PharmaSUG 2015 PharmaSUG 2014 PharmaSUG 2022 PharmaSUG 2012 PharmaSUG 2019 PharmaSUG
```

Figure 6. Lex Jansen User Group Level

## **MISCELLANEOUS LEVEL**

On this level, you can find a hidden treasure: special SAS biographies created by the Macro Maven, Ron Fehd. This level is found by clicking on SAS Biographies on the main level. You can also find a selection of Lex Jansen's papers and a link to Troy Martin Hughes' paper.

https://www.lexjansen.com/sas-bibliographies/

https://www.lexjansen.com/sas-bibliographies/Hughes-2024 wuss-216 48-year-analysis.pdf

https://www.lexjansen.com/papers/

It is possible to extract an amazing amount of data, papers, etc. in an instant from Lex Jansen's site using the tools provided, and via web scraping. Troy Martin Hughes uses Python and Beautiful Soup to scrape the site and perform several analyses on SAS user group papers / presentations, and Bart Jablonski has Packages that automate the tasks using SAS. Please see the reference section for more information on their related work.

# ADDITIONAL SOURCES OF BIBLIOGRAPHICAL MATERIALS

There are myriad sources for literature searches and citations on the internet, including other search engines such as Google, sites such as Github, SAS Communities, Stackoverflow, etc. Most allow the copying or scraping of materials to create a reference section.

## REFERENCE REPORTING DATA BASE CONSTRUCTION

Once electronic data collection of reference materials has been accomplished, it is time to identify the elements of the citation of SAS White Papers. Reviewing the citation formats discussed above will provide the details of the separate elements that need to be melded into a reference, and the information from Lex Jansen's site (multiple tables!) will be explored and mapped. We have explored the formats for citing several types of articles, books, etc. above, but for the purposes of demonstration, we can use existing citation models from the PharmaSUG 2025 Paper Template.

## **ELEMENTS OF THE CITATION**

"Article in conference proceedings <a href="Author">Author</a> name: last name, first name>. <Publication date>. "<a href="Article title">Article title</a>." <<a href="Title of proceedings such as Proceedings of the SAS Global 2010 Conference">Global 2010 Conference</a>, <City, State (abbrev) of publication>: <Publisher name>. Optional: You can add a URL to access available online proceedings. For example: Available at <a href="http://support.sas.com/resources/papers/proceedings09/TOC.html">http://support.sas.com/resources/papers/proceedings09/TOC.html</a>."

From the snippet above, we can determine that we need the following elements for this type of citation:

- Author name, formatted as Last, First, followed by a period.
- Publication Date, formatted as Year enclosed in parentheses, followed by a period.
- Title, enclosed in double quotes, followed by a period. Optional italics.
- Proceedings title or Conference name formatted as "Proceedings of" conference name and followed by "Conference" and a comma.
- City and State of the Conference, followed by a period.
- (Optional) "Retrieved from " link to paper

#### AVAILABLE DATA

There are three basic methods of obtaining data from Lex Jansen's site: web scraping, a JSON download, and an XML download. All three result in multiple tables, and all three require post-processing to get the necessary elements of a reference section. We will focus on the JSON method for the purposes of this paper, noting that all three methods are similar.

A search is performed on the SAS search page of Lex Jansen's site, searching by author for Bart Jablonski. A JSON file is downloaded. The following program is run:

```
%let progpath=C:\Papers\391_ExCITE-ing!;
libname dd "&progpath";
filename jsonfile "&progpath.\searchresults.json
wncoding=wlatin1;
libname jsonfile json fileref=jsonfile noalldata;
run;
proc copy in=jsonfile out=dd;
```

## Program 1. Code Snippet for JSON read-in

Depending on the encoding of your system, you may need to (a) make sure no special characters are in your folder name, and (b) add an optional encoding statement (shown in red above) to the filename statement.

The process results in three separate tables: a paper download file, a search result file (this contains the search date, which you can store for reference), and a search result paper file. The search result paper file contains the bulk of the information we need.

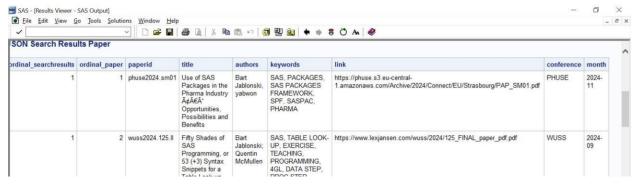


Figure 7. Search Results Table Snippet

Conference and Month comprise part of "Proceedings of" and "Publication Date"; and Title gives us Title;

Authors gives us Authors; and Link will give us link. We still need location information for the conferences and we can obtain this information from Lex's site as well, from an XML file available on the main page of Lex's site. <a href="https://www.lexjansen.com/sasproceedings.xml">https://www.lexjansen.com/sasproceedings.xml</a>

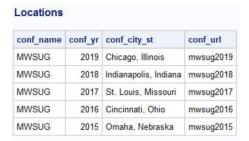


Figure 8. Locations Snippet

Another possibility is to use Bart Jablonski's BasePlus package, which has a tool (%downloadFilesTo() macro that automates the task. (Jablonski, 2023). You can also add additional citations and locations into the XLSX files by hand. Regardless of the method used, we now have all the elements needed. Locations can be added to the citation information via merging on conf\_url in the location table and scanning the first chunk of paperid in the search results table.

## **OUTPUT A REFERENCE SECTION USING SAS**

Features of the SAS program to create a reference section include:

- Merge by conf\_url (created in the search results table)
- Precleaning (dirty Unicode data)
- Preprocess all segments of the citation, particularly name, using SAS functions
- Create an extraordinarily long string which includes all elements
- Sort output by desired keys (last name of the first author, first name of first author, title)
- Output to RTF for an easy drop into the reference section

Full code, the paper, and presentation will be available on my GitHub page following the conference.

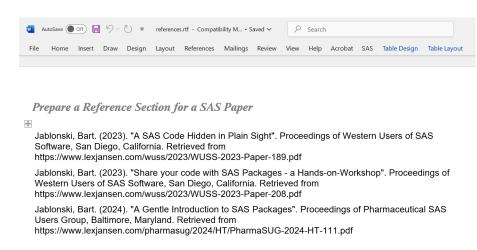


Figure 9. References RTF Output File Snippet

# CONCLUSION

Lex Jansen's web site has been a wonderful resource for me for literature searches, troubleshooting, and writing my own reference sections for SAS white papers. I hope I inspire others to take advantage of the inspiration and convenience.

#### **REFERENCES**

Hughes, Troy Martin. (2023). "Who's Bringing That Big Data Energy? A 47-Year Longitudinal Analysis of 30,000 Presentations in the SAS® User Community To Elucidate Top Contributors and Rising Stars". *Proceedings of the Western Users of SAS Software 2023 Conference*, San Diego, California. Retrieved from <a href="https://www.lexjansen.com/wuss/2023/WUSS-2023-Paper-204.pdf">https://www.lexjansen.com/wuss/2023/WUSS-2023-Paper-204.pdf</a>

Hughes, Troy Martin. (2024)." Who's Still Bringing That Big Data Energy? Leading a SAS® Conference by Leveraging a 48-Year Longitudinal Analysis of 30,498 Presentations in the SAS User Community". *Proceedings of the Western Users of SAS Software 2024 Conference*, Sacramento, California. Retrieved from <a href="https://www.lexjansen.com/sas-bibliographies/Hughes-2024">https://www.lexjansen.com/sas-bibliographies/Hughes-2024</a> wuss-216 48-year-analysis.pdf

Jablonski, Bart. (2023). "Share your code with SAS Packages - a Hands-on-Workshop". *Proceedings of Western Users of SAS Software 2023 Conference*, San Diego, California. Retrieved from <a href="https://www.lexjansen.com/wuss/2023/WUSS-2023-Paper-208.pdf">https://www.lexjansen.com/wuss/2023/WUSS-2023-Paper-208.pdf</a>

## **ACKNOWLEDGMENTS**

I dedicate this paper and ePoster to:

The unparalleled Lex Jansen, who sent me down this rabbit hole many years ago and enabled my first efforts to utilize the fantastic resource that is lexjansen.com. At my request, Lex added first the ability to save searches in the SAS paper search page to XML, and then later to JSON.

To my SAS-sy friends and co-conspirators, Troy Martin Hughes, who has been unfailingly supportive, wildly creative, inspirational, and so much fun; to Bart Jablonski, with his encyclopedia-like knowledge of SAS, his fantastic SAS packages, and the best slinger of American slang ever; to Ron Fehd, who has sparked so many of my own wildly creative ideas, and to Richann Watson, who keeps my feet on the ground and shares her incredible expertise with grace.

To Chris Hemedinger, his SAS Communities colleagues, and the SAS Blog writers, for providing a useful, and rich SAS communal resource.

To the many SAS tech support / R&D / Education staff who have helped me along the way – too many to name!

Long may we wave!

## **CONTACT INFORMATION**

Your comments and questions are valued and encouraged. Contact the author at:

Louise S. Hadden louisesquibbhadden@gmail.com

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