



**Scientific
Research**

Memorandum

AAST

Advances in Aerospace Science and Technology

– A Scholarly Peer-Reviewed Open Access Journal –

Scientific Research Publishing Inc.

Websites: <http://www.scirp.org/journal/aast>

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AAST: Template, Styles, PDF File

Why Use Styles?

It is clear; we need a template for our journal paper, so that all papers within one journal have the same look and feel. It also makes it easier for readers to follow the content of the papers. The AAST Journal provides authors (like the other SCIRP Journals) with a template for writing the journal paper.

The AAST Template looks like the template of other SCIRP Journals, however the underlying logic and hierarchy of the styles has been designed newly almost from scratch. Styles increase author's writing efficiency and eliminate much of the ambiguity that otherwise exists when interpreting template rules.

For the author writing the paper, it is important not only to have the visual appearance of the template and the explanations to text editing as provided in the template. It is also of primary importance to understand the logic of the styles and to build carefully on this logic. The authors

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should refrain as much as possible from ad hoc modifications of the text as a one off solution, but should rather edit the text by using the pre-defined styles. One-off changes in the text or uncoordinated changes of styles can easily end up in a chaotic document structure that is later almost impossible to correct².

Where Do I Find AAST's Template?

Follow the link <http://www.scirp.org/journal/AAST>, open the “Guidelines” tab and download from the button “Download Template” on the right. The styles are embedded in this file. For the AAST Template, the usage of the styles is explained in the template itself. This Memorandum here does not serve to explain the usage of the styles but rather tries to provide detailed information giving the underlying logic of the styles and how a PDF could be created at the end from the template.

How to Find the Styles in the Document?

The AAST Template includes the styles as defined in **Table 1** (see last page of this document). They are presented to the user as depicted in Figure 1 (Word 2003), Figure 2 (Word 2007), and Figure 3 (LibreOffice).

² Unfortunately this has happened with the original SCIRP template. Style definitions having been changed apparently over the course of many years by many people.

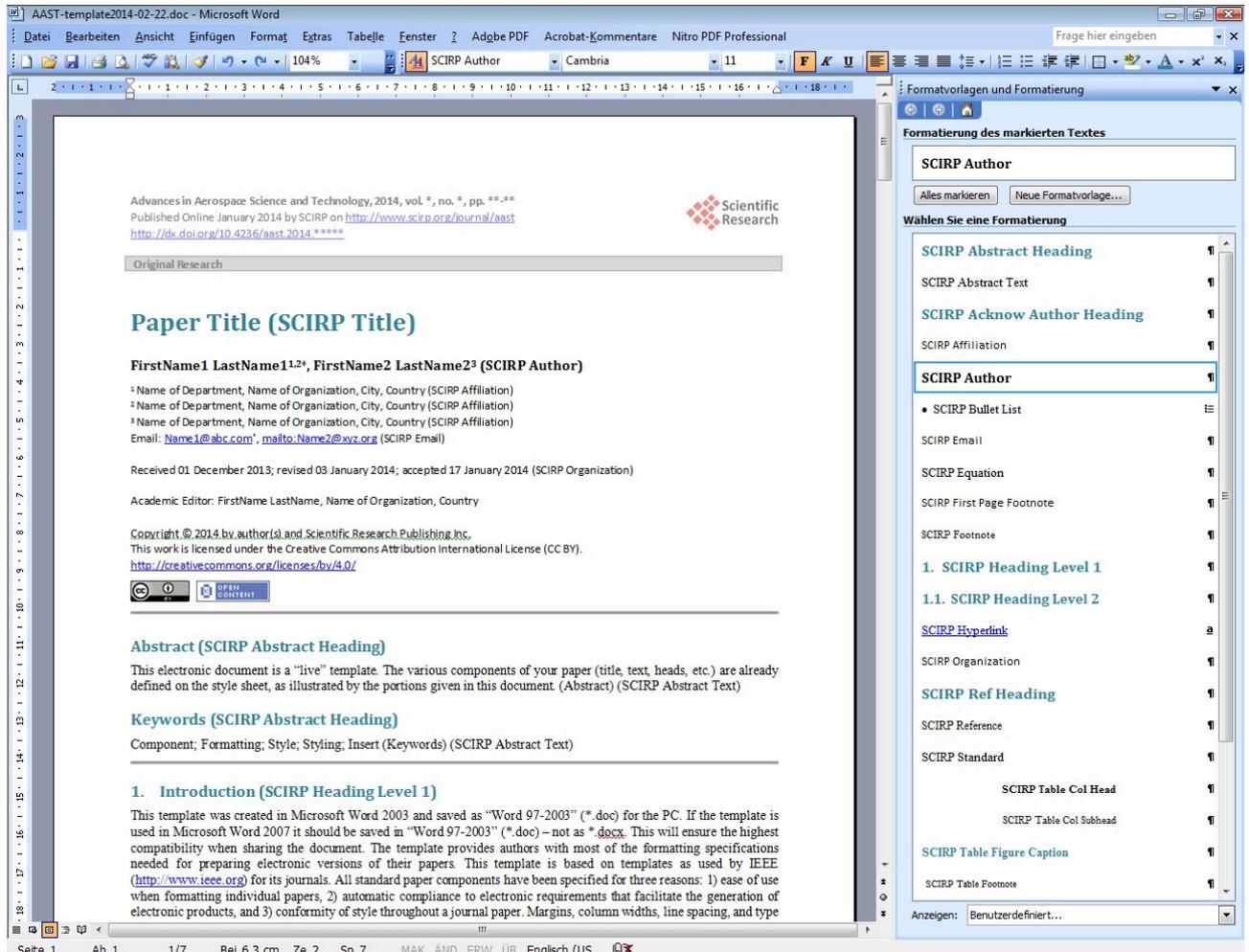


Figure 1 Appearance of the AAST Template and its Styles in Word 2003.

In Word 2003 the Styles are opened from the “Format” Menu. Many styles are defined in the word processor. In order not to get confused, define the visibility of the styles such that you only see the SCIRP styles. In the Styles Window on the bottom line you can choose “User defined ...”. A form opens on which you can select the styles that should be displayed.

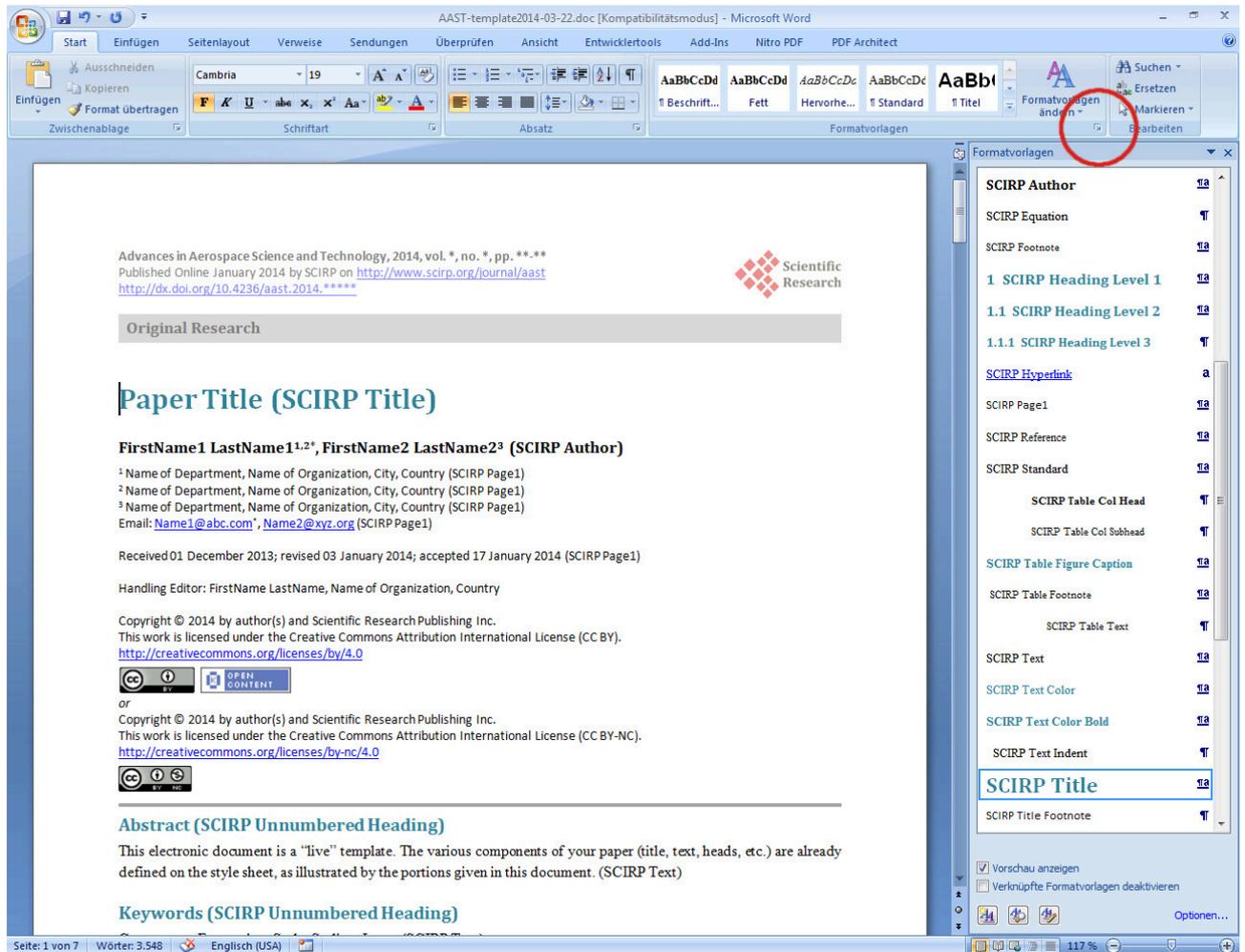


Figure 2 Appearance of the AAST Template and its Styles in Word 2007.

In Word 2007 open the style list by clicking on the little symbol marked here by a red circle. Go to “Options ...” in the lower right corner of the screen to define the visibility of the styles such that you only see the SCIRP styles.

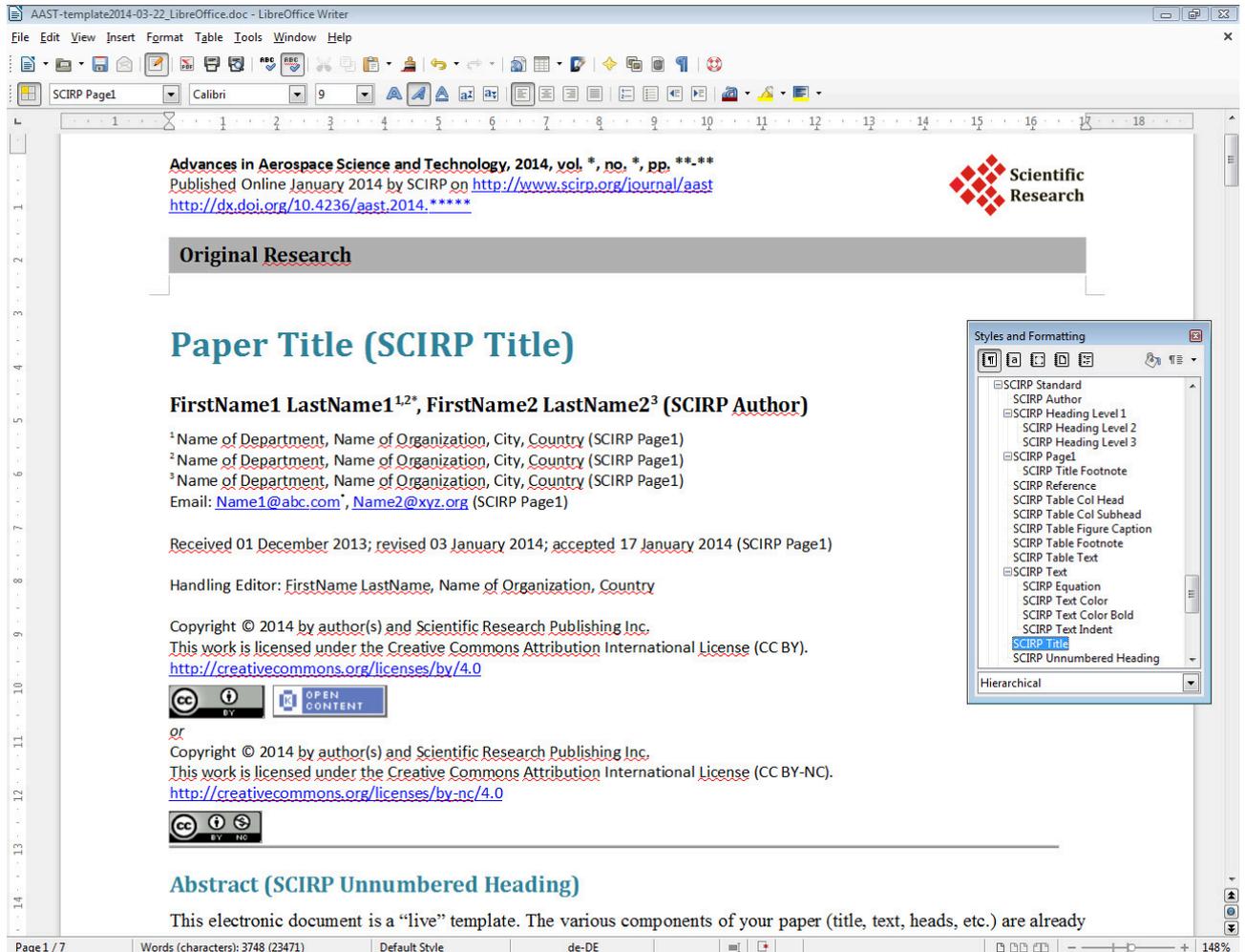


Figure 3 Appearance of the AAST Template and its Styles in LibreOffice.

Powerful, free to download, free to install, and free to use are OpenOffice (<http://www.openoffice.org>) and LibreOffice (<http://www.libreoffice.org>). I had **better success with the AAST-Template** originally produced for Word 2003 **in LibreOffice** (logo in Figure 4) than in OpenOffice. LibreOffice originates from OpenOffice, but seems to be developed faster now (<http://en.wikipedia.org/wiki/LibreOffice>).

The styles open from the “Format” Menu (or with F11). Best viewing of the SCIRP styles is by selecting “Hierarchical” (below in the window) and with the “Paragraph Symbol” (icon top left in the pop up window).



Figure 4 The LibreOffice logo.

Very interesting is that both office suits come with a good and free built-in **PDF generator**. This PDF generator can produce the paper from the author's manuscript according to most of the rules (see below) set for the AAST journal for its PDF file generation. Although SCIRP's type editors will normally generate the PDF, authors have the **possibility to preview their results in a PDF**.- or even to propose a ready typeset PDF file to the publisher as the final outcome of the review process! Also possible: For final typesetting at SCIRP the Word file (*.doc or *.docx) coming out of LibreOffice could be sent to SCIRP (as an alternative to sending a *.doc or *.docx generated with Microsoft Word).

After all, it also makes much sense to use **Open Software** when publishing **Open Access**. SCIRP provides more than Gratis Open Access with its journals. With CC BY and CC BY-NC, SCIRP provides even Libre Open Access (<http://www.sparc.arl.org/resource/gratis-and-libre-open-access>). Using **LibreOffice** seems to fit to **Libre Open Access**.

How are the Styles Defined?

Styles are defined in a hierarchy. Basic styles are provided in Word and are part of each Word software application. The Word user has the possibility to extend the styles in a hierarchical manner. AAST has done this for the user. All styles in the AAST Template can easily be differentiated from other styles because they start with the letters "SCIRP".

Table 1 shows the AAST Style Hierarchy. All styles are based on the Word style *standard*. Only for ease of future maintenance and to easily correct differences in different Word implementations an SCIRP Baseline Style called *SCIRP Standard* has been defined. As defined in the template (as it appears necessary in my installation) it does nothing else but copying the Word *standard*. All *SCIRP Hierarchy 1 Styles* inherits all attributes directly from *SCIRP Standard* and modify its definition in a certain way. The modifications with respect of the "parent style" are given in **Table 1** in the column "Style Definition".

SCIRP Hierarchy 2 Styles are based on a selected *SCIRP Hierarchy 1 Style*. This is done for simple maintenance on the styles. Only the parent style needs to be changed and the changes are inherited to all depending higher order styles. In Table 1 the styles always inherit the attributes of the style to the left and up of it. So e.g. “SCIRP Text” inherits the attributes from “SCIRP Standard”. “SCIRP Text Indent” (used for subsequent paragraphs) inherits all attributes from “SCIRP Text”.

The baseline style “SCIRP Standard” is not really intended for the author to be used, but all other SCIRP styles are designed for the authors to be used as prescribed in the AAST Template. There are **styles for different purposes** which are marked in **different colors** in **Table 1**:

- styles for headings are marked **yellow**,
- styles for basic text in paragraphs are marked **purple**,
- styles for text in tables are marked **blue**,
- styles for footnotes are marked **green**.

Word allows defining which style will come up automatically once we have finished with the first style while writing and are pressing “return”. In this case Word continues with the style defined as the “follow on style” in the style definition. **Table 1** lists the style names in each cell on top with bold face and below the “**follow on style**” in standard type face. “Follow on styles” for the next paragraph have been defined as it will be required in most cases. If the author’s text requires some other style in the following paragraph the style definition of the next paragraph can be changed manually allocating another style to the text in question.

AAST Rules for PDF Generation

or

How should the PDF File Look at the End?

Here are AAST’s criteria for a good PDF file. It is the responsibility of SCIRP Typesetting to fulfill these rules, but each (corresponding) author should check, if the own paper has been converted to PDF in the best way possible.

1. Produce the PDF as **PDF/A** (ISO 19005) suitable for long-term archiving of your paper (<http://en.wikipedia.org/?title=PDF/A>).
2. Do not built in restrictions (like “no copy” or “no edit”) with help of **password protection**. This would be detrimental to some long term archiving activities.
3. Retain the links in the paper as **live** (clickable) **links** also in the PDF file. These links are
 - a. Spelled out web links (<http://...>) visible in the text³.

³ Visible links (<http://...>) are interpreted by PDF readers and should always work.

- b. Hyperlinks added to text or to graphic buttons (pointing to the web or to another location of the document)⁴.
4. Put **standard PDF metadata** into the PDF file: Title, Authors (from “Tools”, “Options”, “User Data”), Abstract, Keywords (from “Properties”, “Description”, **Figure 5**). This is done by entering the data already into the word processor (in brackets: How to enter data in LibreOffice).
5. A sequence of bookmarks is placed automatically into PDF file and functions as the very convenient **PDF Table of Contents** for the paper (**Figure 6**)
6. **More metadata** should be included for better listing of the paper by search engines. This is how it should work: Opening “Properties” from the File menu in LibreOffice and selecting the “Custom Properties” tab and you can add a “name” for a property and a “value” for that property. It is stored in the word processor file (e.g. in LibreOffice; **Figure 7**). Many of the standard names given in the program for additional metadata should be used to enhance the chance for recognition and machine readability.
7. Preparation of the PDF for **fast web viewing** (the PDF starts to be visible before full download).

I did not manage to get to work Rules 6 and 7 with LibreOffice. However, I added metadata to the PDF file with the Acrobat Writer.

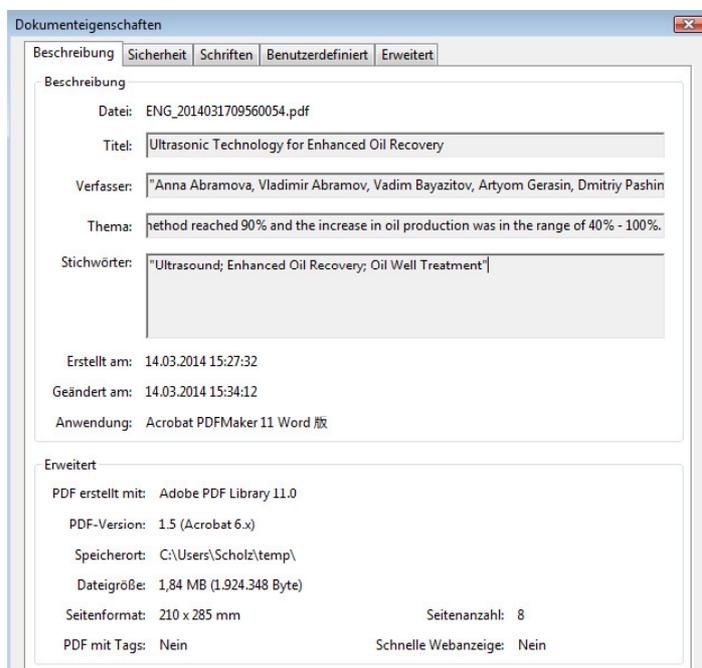


Figure 5 Standard Metadata in a PDF File created by SCIRP for its journal ENG: Title, Authors, Abstract, Keywords can be saved as default in any PDF file.

⁴ These links need to be stored by the PDF creator. Not all PDF creators are capable of doing this. LibreOffice' PDF creator supports Hyperlinks, but insists of a blue underlined link in the file. Hyperlinks on graphics work, but are not stored in the file.

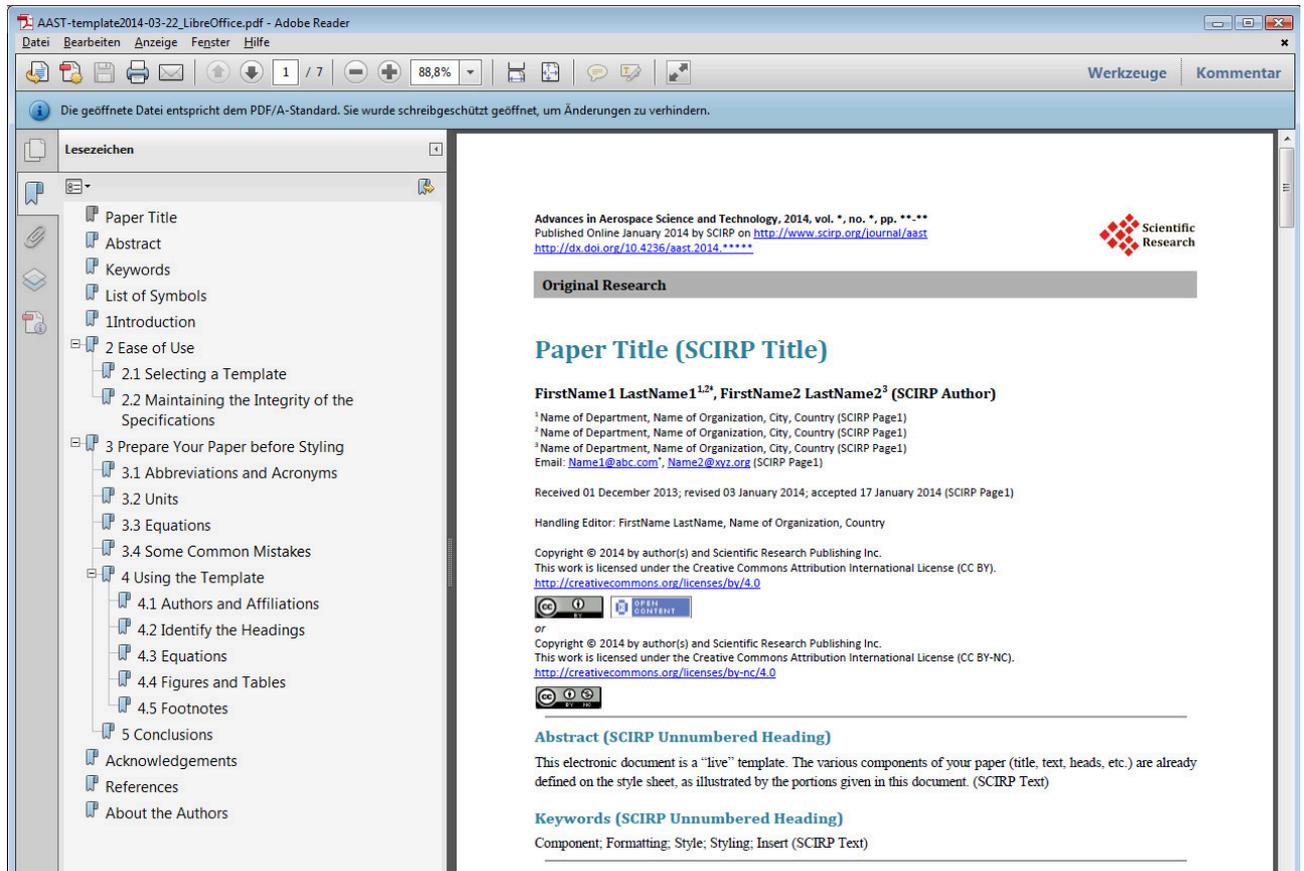


Figure 6 A separate PDF Table of Contents in the PDF File can be generated automatically.

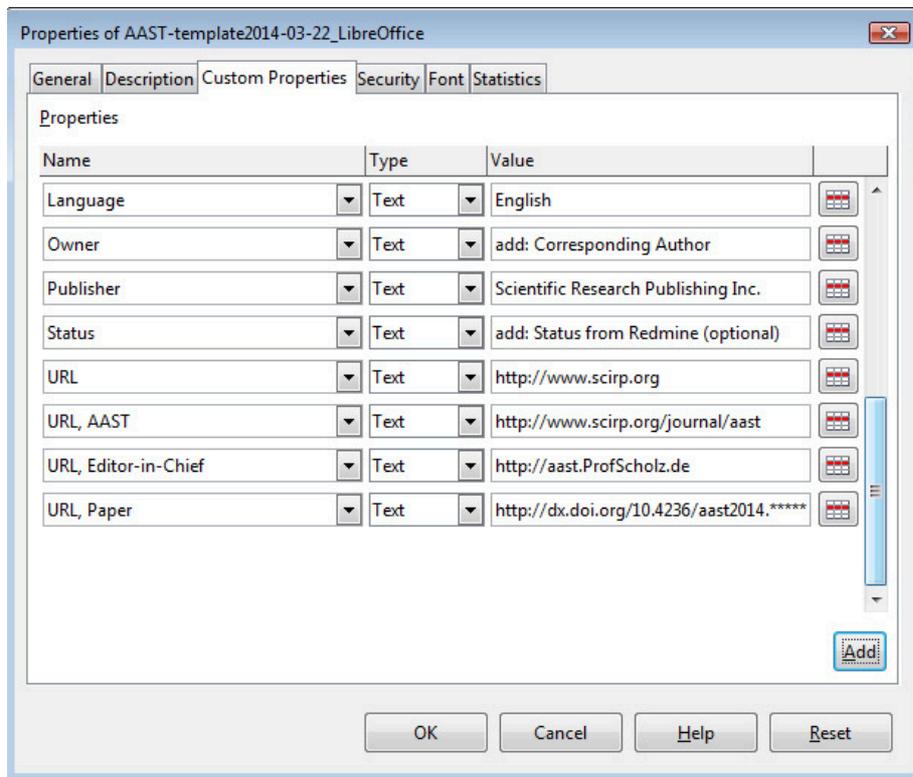
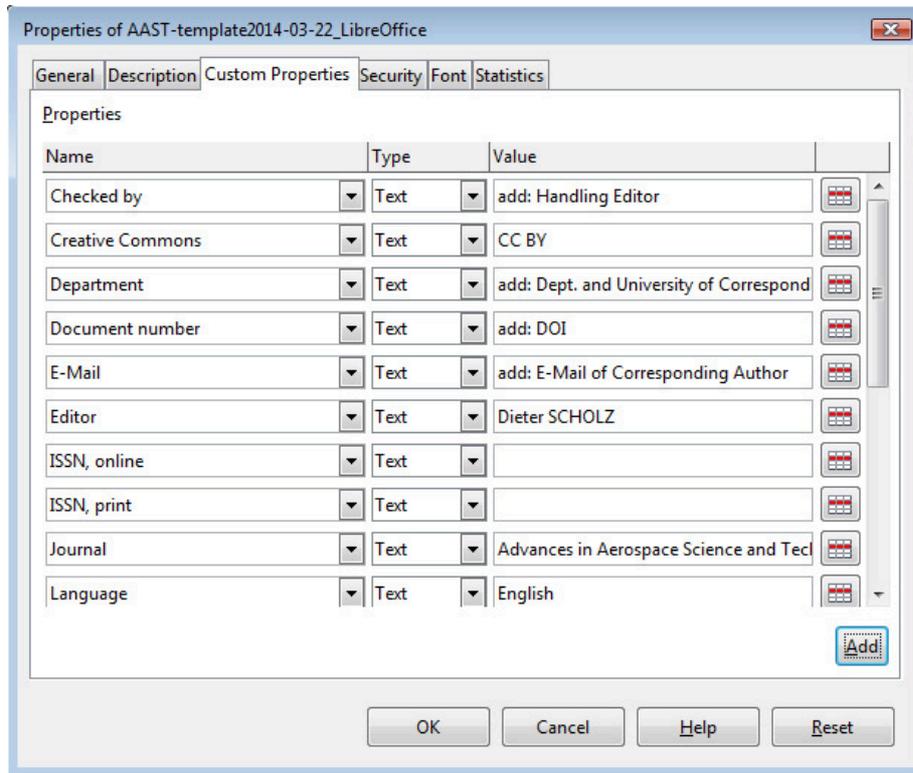


Figure 7 Additional metadata called “Custom Properties” can be stored in the Word or LibreOffice file before PDF generation. The figure shows additional metadata entry into LibreOffice using in most cases already supplied, standard names. Unfortunately LibreOffice does not store the additional metadata into.

Table 1 Style Hierarchy of AAST Template

Word Style Hierarchy 1	SCIRP Baseline Style	SCIRP Hierarchy 1 Style	SCIRP Hierarchy 2 Style	Additional Style Definitions
standard				Assumed to be set to: Print: Times New Roman, 10 pt Justify (left and right justified margin) Line spacing: single Paragraph control at page end English (USA)
	SCIRP Standard SCIRP Standard			No changes (Purpose of the Baseline Style is to adjust the "standard" Word Style if necessary)
		SCIRP Title SCIRP Author		Print: Cambria, 19 pt, bold Color RGB (49;132;155) left aligned No spell check Space: In front: 15 pt, Behind: 15 pt
		SCIRP Author SCIRP Page 1		Print: Cambria, 11 pt, bold Left aligned No spell check Space: Behind: 6 pt
		SCIRP Page1 SCIRP Page1		Print: Calibri, 9 pt Left aligned No spell check
			SCIRP Title Footnote SCIRP Title Footnote	Justify (left and right justified margin)
		SCIRP Heading Level 1 SCIRP Text		Print: Cambria, 12 pt, bold Color RGB (49;132;155) Heading numbering: Level 1 (many things) Line spacing: 1.2 lines Space: Behind: 6 pt
			SCIRP Unnumbered Heading SCIRP Text	Indent: Left: 0 ch, First line: 0 ch No numbering
			SCIRP Heading Level 2 SCIRP Text	Print: Cambria, 11 pt Heading numbering: Level 2 (many things)
			SCIRP Heading Level 3 SCIRP Text	Print: Cambria, 10 pt Heading numbering: Level 3 (many things)
		SCIRP Text SCIRP Text Ident		Line spacing: 1.2 lines
			SCIRP Text Ident SCIRP Text Ident	Indent: First line: 1 ch
			SCIRP Text Color SCIRP Text Ident	Color RGB (49;132;155)
			SCIRP Text Color Bold SCIRP Text Ident	Color RGB (49;132;155); Bold
			SCIRP Equation SCIRP Text Ident	Tabulator: 8.5 cm: centered 17 cm: right aligned Space: In front: 3 pt, Behind: 3 pt
		SCIRP Footnote SCIRP Footnote		Print: 8 pt Indent: Left:0 cm; Hanging: 0.35 cm Tab: 0.35 cm, left
		SCIRP Table Footnote SCIRP Table Footnote		Print: 7 pt Indent: Left:0.2 cm; Hanging: 0.5 cm Tab: 0.7 cm, left
		SCIRP Table Figure Caption SCIRP Text Ident		Print: 9 pt; Bold Color RGB (49;132;155) Indent: Hanging: 1.5 cm Tab: 1.5 cm: left
		SCIRP Table Col Head SCIRP Table Col Head		Print: 8 pt; Centered; Bold No spell check Space: In front: 2 pt, Behind: 2 pt
		SCIRP Table Col Subhead SCIRP Table Col Subhead		Print: 8 pt; Centered No spell check Space: In front: 2 pt, Behind: 2 pt
		SCIRP Table Text SCIRP Table Text		Print: 8 pt; Centered No spell check Space: In front: 2 pt, Behind: 2 pt
		SCIRP Reference SCIRP Reference		Print: 9 pt No spell check Indent: Hanging: 0.5 cm Space: Behind: 3 pt

Definition of Colors and Table Contents

	Basic Styles (not intended to be used by authors)
	Titles
	Paragraph Text
	Internal Table Text
	Footnotes
SCIRP Title	Name of the Style
SCIRP Author	Style that follows after hitting "Return"

Short Description

All styles are base on the Word style "standard". All other styles can inherit (be based on) another style. This means that the new definition is based on the inherit style. It is possible to define a hierarchy of styles if one style is based on another. All styles for AAST at SCIRP are based on "SCIRP Standard" (Times Roman, 12 pt, left and right justified margin, single line spacing, US-English spelling and grammar checking). This style is also used for the Abstract. General text "SCIRP Text" is written with a line spacing of 1.2 lines. Other styles are defined as shown above. **Please use a blank line (SCIRP Text Ident) before each new heading - unless two heading (Level 1 and 2) follow each other.**