Guidelines for Preparing Publications

Version 3.1
October 2016

Word 2010 and later versions

UP-TO-DATE LINKS

Guidelines: http://hw.oeaw.ac.at/richtlinien
Document templates: http://hw.oeaw.ac.at/richtlinien/dokumentvorlagen

MultiKey: http://www.oeaw.ac.at/kal/multikey/
Classical Text Editor: http://www.oeaw.ac.at/kvk/cte/

Vademecum: http://hw.oeaw.ac.at/vademecum
Information for reviewers: http://hw.oeaw.ac.at/vademecum/Merkblatt.pdf
Manuscipt submission forms: http://hw.oeaw.ac.at/vademecum/Einreichformular.doc
Citation rules: http://hw.oeaw.ac.at/vademecum/Zitierregeln.pdf

Guidelines for preparing electronic publication in PDF format: http://hw.oeaw.ac.at/ep
PDF settings: http://hw.oeaw.ac.at/richtlinien/PDF-Einstellungen

Microsoft Office online help: http://office.microsoft.com/de-de/
Unicode: http://www.unicode.org/

Email addresses:
Contact address for electronic publishing: epub@oeaw.ac.at
Book production: buchproduktion@oeaw.ac.at

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1. GENERAL

In October 2005 the Austrian Academy of Sciences publishing house provided the first technically binding guidelines for preparing publications. As requirements change, e.g. due to technical developments, authors' suggestions etc., every effort is made to update these guidelines.

Since Word 2007 the user interface has radically changed due to the introduction of ribbon technology. Additionally, many Word commands are now accessed differently. The 2010 / 2012 versions of Word were also accompanied by optical adaptation of the user interface.

The "Office button" has also disappeared. The corresponding commands are now housed in the "File" menu.

These significant changes have prompted the publishing house to adapt its document templates to the new-look user interface. While the menus in the templates for versions up to 2007 were located in the "Add-ins" tab, now they are presented in a clear and user-friendly fashion in their own ribbon. Since Word 2007 already employs ribbon technology, the new document templates can also be used with Word 2007.

All information and terms in this edition of the guidelines are based on Word 2010. With a few exceptions, the 2012 version's user interface is identical. These exceptions are shown where relevant.
Older versions are covered in a separate edition of guidelines. The screenshots were created using Windows 10. (There may be some variation between operating systems and user-defined settings.)

1.1 In brief

1.1.1 Structured text

These guidelines describe three kinds of structured text preparation:
- the word processing program Microsoft Word,
- the XML editor and the
- classical text editor.

The basis of every publication is formed by text.
The most suitable form for the further editing or creation of publications for the OeAW is to prepare a "structured text".

Structured text is characterized by the consistent use of text mark-ups. Throughout the entire document the same style and the same XML tag are used e.g. for the first heading level. This consistency proves advantageous for further editing, especially in layout programs and online systems or databases.

1.1.2 Scans/illustrations

The chapter "Scans/illustrations" provides a general description of the most important criteria that should be considered during such operations.

If authors are uncertain, they can still send good-quality templates for scanning or digital data and appropriate instructions for further processing.

1.1.3 Breaks / layout / PDF for printing / PDF online / CD and DVD production

The book production department is responsible for a publication's technical production and design.

Good typography makes the work easier to read and helps make the content accessible. Besides print production there are various options for using a book's data in different forms.

The data format is determined according to the requirements of each individual case.

Experience has proven that use of breaks / layout / PDF for printing / PDF online / CD and DVD production without personal consultation with the book production department often causes problems.

Breaks / layout prove problematic due to the differences between programs, while PDF for printing and PDF online have their pitfalls due to rapid technical developments.

These elements have been removed from the guidelines in order to guarantee up-to-date instructions in the short term.

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2. PREPARING MANUSCRIPTS ON THE BASIS OF UNSTRUCTURED TEXTS

Formally and technically correct data are a prerequisite for a swift and cost-effective production process. A key feature of this process is providing support for authors and publishers, both informally and technically.

The publishing house of the Austrian Academy of Sciences offers various options for preparing structured data, with a focus on Word users.

2.1 Document templates with Word

Document templates with the file type ".dotm" are a specific type of "Microsoft Word 2010/2012 document" in which *inter alia* styles, macros, shortcuts and user-defined menu bars can be saved. All of these functions are available in a document created using a document template. In Word 2010/2012 there are also document templates without macros with the file type ".dotx".

Document templates save authors a lot of work by allowing them to use readymade parameters, and they also facilitate adaptation to the later book layout and hence provide huge cost savings.

The document templates were tested with the following program versions:
Windows: Word 2010, Word 2012

Separate document templates are available for older versions of Word, identifiable by the file type ".dot".

Document template structure
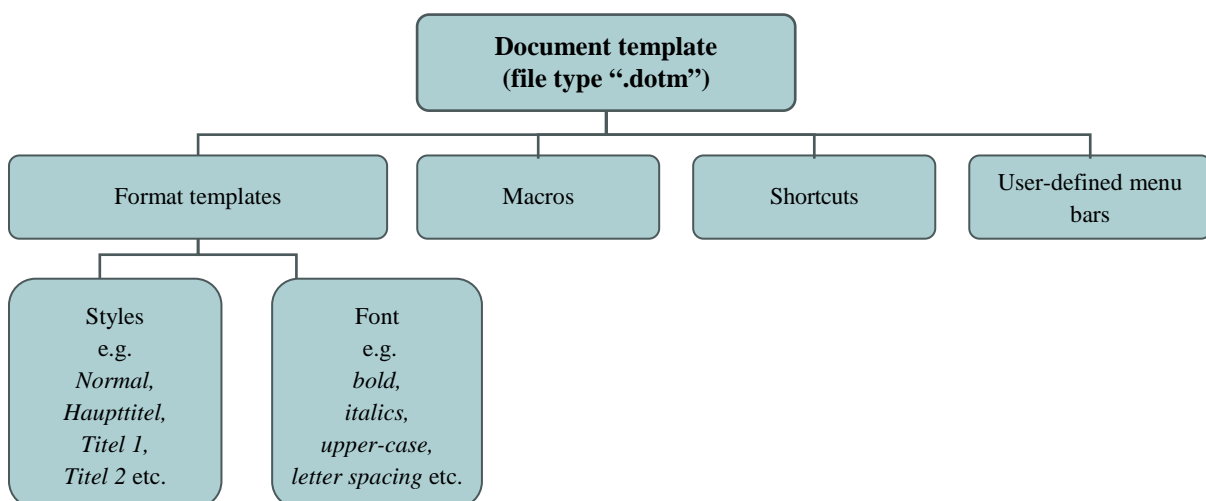
Document template (file type ".dotm")
— Format templates
  — Styles e.g. *Normal, Haupttitel, Titel 1, Titel 2* etc.
  — Font e.g. *bold, italics, upper-case, letter spacing* etc.
— Macros
— Shortcuts
— User-defined menu bars

2.1.2 Where can I find a document template and how do I install it?

Document templates are available at http://hw.oeaw.ac.at/richtlinien/dokumentvorlagen.

Downloading and saving (example: Varia.dotm)
To download, click on the link in question using the **right mouse button** and select "**Save as ...**".

Word saves document template files in a special folder. There are slight differences between Word 2010 and Word 2012 here.
It is easiest to access the template folder by using system variables, since the path to the folder is user-dependent.

For **Word 2010** the path name is:
%appdata%\Microsoft\Templates

This breaks down as:
C:\Users**<Username>**\AppData\Roaming\Microsoft\Templates

For **Word 2012** the path name is:
%homepath%\documents\Custom Office Templates

This breaks down as:
C:\Users**<Username>**\Documents\Custom Office Templates

In each case <Username> stands for your user name.

Hence you simply enter the path name in the Windows Explorer path box and press the return key.
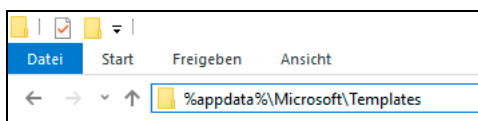
You then copy the document template to this folder. Copy the help file for the document template to the same place. The name of the PDF file must be retained. Then you can activate it directly in Word later on.

Macro Security: Click in the Word options (accessed via the "*File*" menu) on *"Trust Center / Trust Center Settings... / Macro Settings"*. In order to be able to use all document template functions, please select "*Disable all macros except digitally signed macros*" and confirm by selecting OK.

The standard template folder is listed under trusted locations ("*File / Options | Trust Center / Trust Center Settings... / Trusted Locations"*).

All document templates in the standard template folder are thus trusted and a security alert will not be shown.

If you are not able to access the standard template folder, please contact your system administrator or use the "**alternative option**" for installing document templates:
Copy the file "Varia.dotm" to the same folder in which your publication is saved. When you double-click on the file "Varia.dotm", a new Word document is created using the document template "Varia.dotm". (Tip: do not open the document template in Word via "*File / Open*".)

The disadvantages of this alternative option:
1. It is not possible to create a new file in Word via "*File / New*", and the document template is not shown among the "Recently Used Templates" either.
2. Due to the macros in the document templates, every time you open a file that was not created using a document template installed in the standard template folder, the security alert "Macros have been disabled" appears.

   If you wish to use the macros, click on "*File / Options*" and install the certificate with which the macro projects were signed in the document templates. This saves the certificate in the list of "trusted sources" and the security alert will no longer appear.

2.1.3a How do I use a document template – Word 2010?

Once you have copied the document template to the template folder, you can create a new document using the document template via "*File / New*".

The new document is linked to the document template and "inherits" all paragraph and character formats, macros, the menu bar (ribbon) and shortcuts.

Click on "*File / New*" and then on "*My templates*".
In the dialog box "*New*", select the document template desired, e.g. "*Varia.dotm*".
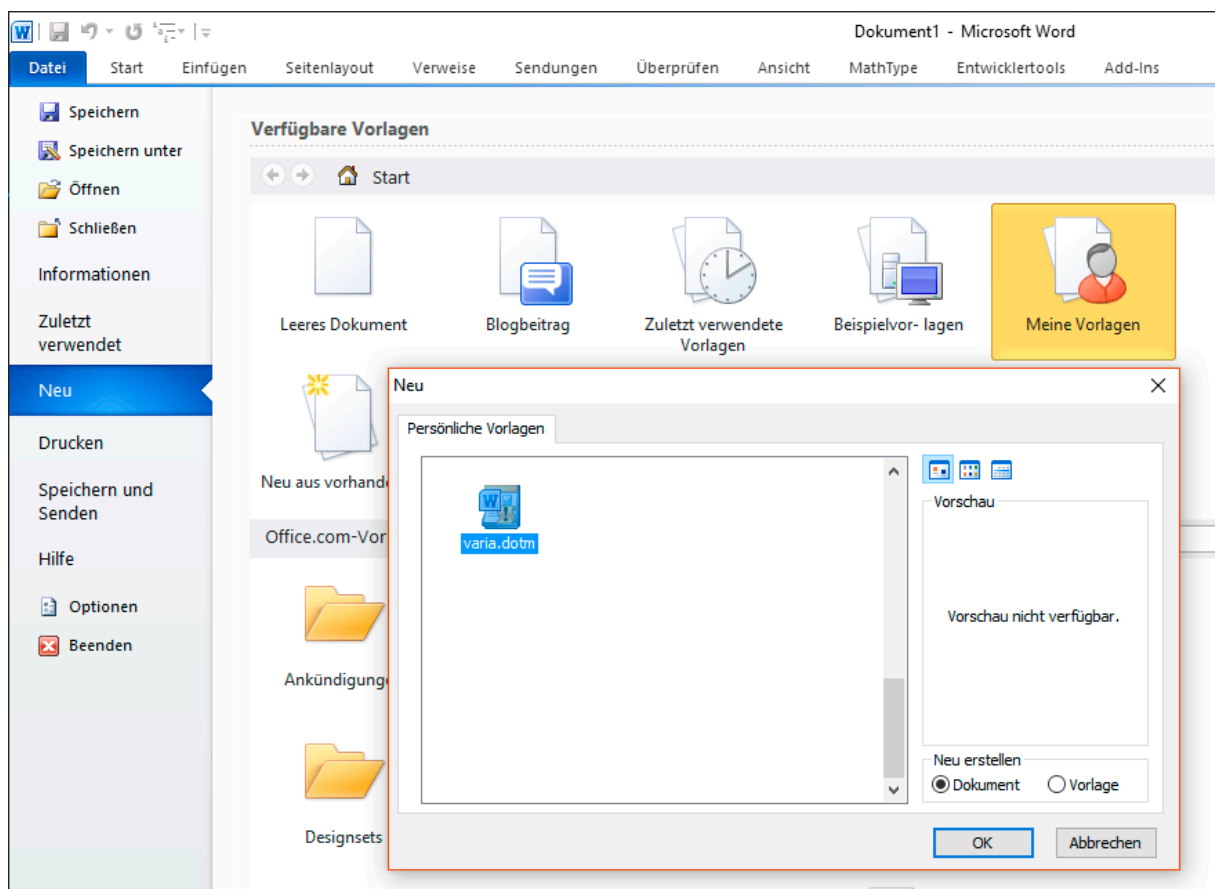
2.1.3b How do I use a document template – Word 2012?

Once you have copied the document template to the template folder, you can create a new document using a document template via "*File / New*".
        The new document is linked to the document template and "inherits" all paragraph and character formats, macros, the menu bar (ribbon) and shortcuts.

Click on "*File / New*" and then on "*Personal*".
        In the dialog box "*New*", select the document template desired, e.g. "*varia*".

2.1.4 Styles

After installing the document template you will find a separate new menu ribbon in the Word menu bar:
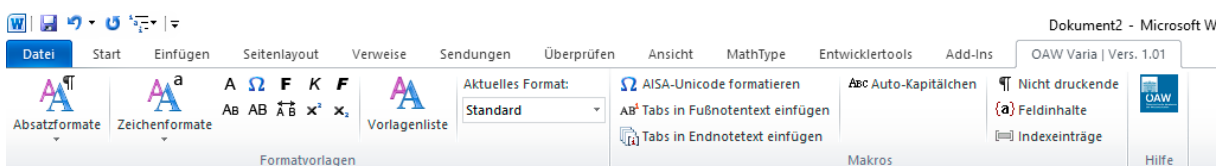
The ribbon contains menus for paragraph and character formats, hotkeys and various tools. A number of text characteristics (font and font size, indents, spacing etc.) can be established in a single step in Word using paragraph and font styles. The individual document templates contain a description of each paragraph format, character format and macro.

An example of the ribbon in the document template "Varia.dotm":
The group "styles" contains two menus for the styles. The character formats are also provided as hotkeys for fast clicking. "*Styles*" shows the format of the character/paragraph currently justified. You can display and hide the list of styles using the "*Styles*" button.

The "Macros" group contains various tools based on macros. Using the three buttons on the far right of the group you can display and hide non-printing characters, e.g. the end of a paragraph or tab. Field contents and index entries can also be displayed or hidden here. Finally, above right you can find the "*Help*" button. This opens the help file for the template.
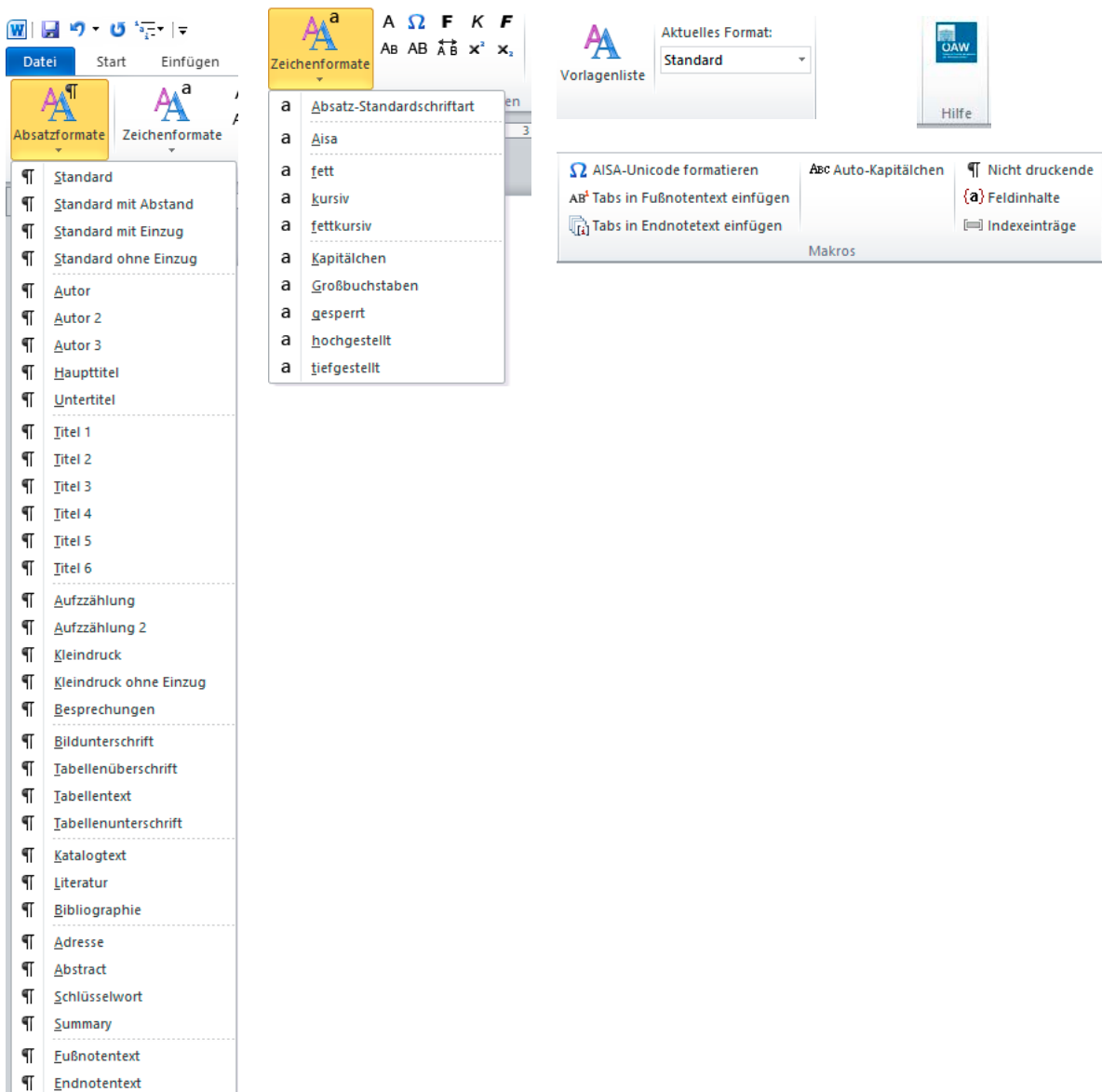
As already mentioned, you can display or hide the the list of styles using the "Styles" button.
This can also be done using the shortcut
[Ctrl] + [Shift] + [Alt] + [S].

This Word window displays the styles alphabetically (as standard) without subdivision.
You can also assign the most important styles to a shortcut.
These are listed in the individual descriptions of the document templates.

Example:
Titel 1 = [Ctrl] + [1] on the number pad.

2.1.5 Editing existing (unstructured) texts

In principle, the existing document templates are intended for the creation of new text documents.

If however existing (unstructured) texts are to be edited and formatted with the styles of a certain document template, the following procedure should be performed:

- Create a new file via "*File / New*" with the desired document template (see chapter 2.1.3) or double click on the desired ".dotm" file if the alternative option for document template installation is selected.
- Insert the existing (unstructured) file into the empty document using "*Insert / Text / Object / Text from File …*".

The text in the existing file is now inserted into a "new file" and the styles of the desired document template (e.g. "Varia.dotm") are available.

The desired styles can now be assigned to the individual paragraphs can now be assigned to the desired styles using the custom toolbar, the Quick Styles catalogue or the Word window "Styles". See here the description in the chapter "Styles".

Take care that styles and manual formatting in the existing file are not lost but are accepted when you insert the new file.

Removing this manual formatting – assuming it is not desired – and assigning the desired styles can sometimes be very time consuming.

Unfortunately, reformatting files in Microsoft Word is a difficult business. Some manual formatting can be lost when paragraph styles are assigned. This particularly applies to the font "Aisa Unicode". To solve the problem, there is a macro called "Format Aisa Unicode" in the document template "Varia.dotm". Information on how to use this macro is provided by the sample text on the document template "Varia.dotm".

It is advisable to delete styles imported from the existing document if they are no longer required (e.g. "body text").

2.1.6 Document names

Files must be named in accordance with the rules. The background to the regulated naming of files can be seen when continuing to online publications or the server functions implemented for that purpose.

Publication of edited volumes or journals:
"JOEB-55_04-Hoerandne"

Title of publication   No.*   Author

Books by an author, for instance "Fettweis":
**"Fettweis_01-Bergbau"**

Author   No.*   Chapter

* sequential number so that the files are listed in the correct order.

- The following characters are permitted: Latin letters in ASCII character set, underscore, hyphen and numbers. The document name may not begin with "0" however.
- Umlauts, letters with accents or special characters (\ / * ? „ < > | ; .) are not permitted.

2.1.7 Word settings

The standard settings for Word are configured to automatically correct typing errors using the "AutoCorr" feature. However, this "automatic correction" often has undesired results. Therefore automatic replacement of typing errors should be **adjusted according to your own requirements**, and unnecessary options should be deactivated. To do this, click on "*File / Options / Document Inspector / AutoCorrect Options / AutoCorrect*".
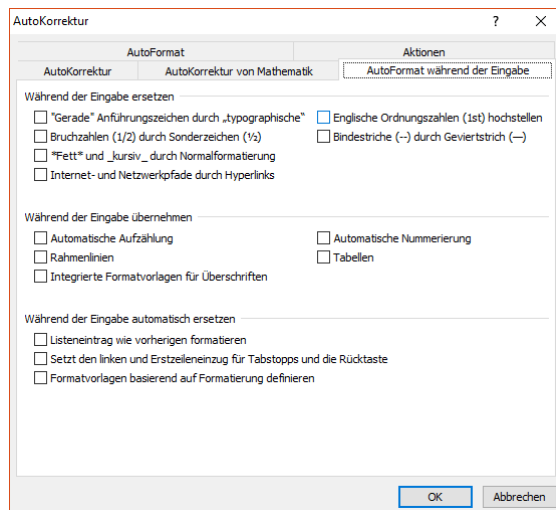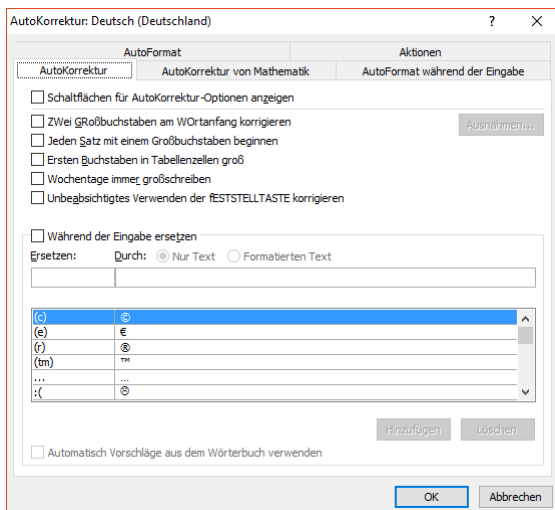
The settings for "*AutoFormat As You Type*" should also be adjusted in accordance with your own requirements. It is recommended that you disable the options "*Automatic bulleted lists*", "*Automatic numbered lists*" and "**Bold* and _italic_ with real formatting*". You should **definitely disable** the option "*Define styles based on your formatting*".
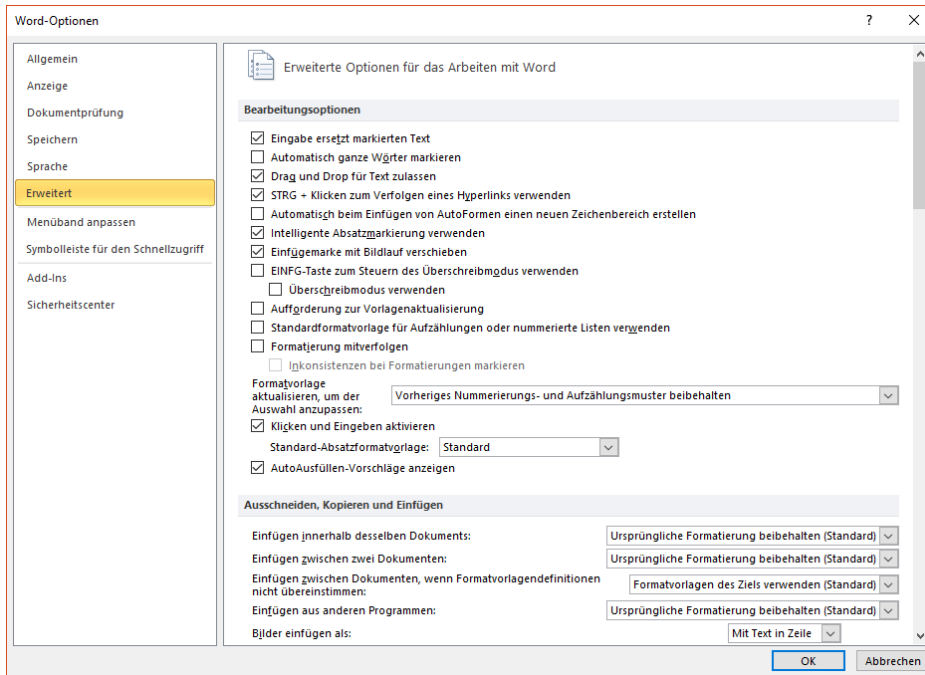
You should **definitely disable** the option "*Keep track of formatting*" under "*File / Options / Advanced*".

2.1.8 Fonts

The use of Unicode fonts is required if print publications are to be turned into fully functional online data.

The basic font in the document templates is "Times New Roman". This font is a Unicode-compatible font and has a large number of Unicode characters. Also, after MultiKey has been installed (see 2.1.10), the font "Aisa Unicode" can be accessed.

There are also different versions of fonts; the number of characters is continually being expanded. A new version of the "Times New Roman" font comes with "Windows Vista". The new version contains all Ancient Greek fonts and many Latin characters and accents.

"Windows Vista" therefore does not need to use the font "Aisa Unicode".

2.1.9 What is Unicode?

Unicode is an international standard for the digital encoding of the characters or text of all known written cultures and writing systems. The aim is to overcome the problem of the incompatibility of different codes in different countries.

Documents written in Unicode are always compatible, irrespective of country-specific settings and operating systems.

What are required however are a Unicode-enabled operating system, Unicode-enabled applications and Unicode-compatible fonts (http://www.unicode.org/).

Unicode's character set has now grown to the extent that it can no longer be completely accommodated by a single font. A maximum of 65,536 characters is permitted for TrueType and OpenType fonts. Hence just because a font is Unicode-compliant, that does not necessarily mean it contains the complete character set; it only means that the selection of characters it contains has standard encoding.

2.1.10 MultiKey

This tool developed by Dr. Stefan Hagel enables Unicode text to be entered in various languages in Microsoft Word and comes with the Unicode font "Aisa Unicode" and a conversion tool.

Up-to-date information on MultiKey is available at http://www.oeaw.ac.at/kal/multikey/.

MultiKey can also be downloaded from this homepage. To install MultiKey, you must be registered as an administrator in Windows. If you are not registered as an administrator, please contact your system administrator to perform installation. The downloaded file "multikey2000.exe" can be launched by double clicking and selecting a folder in which to save the MultiKey data. Installation (install.exe) is automatic. MultiKey was installed correctly if the red MultiKey symbol appears in the Word ribbon under "*Add-ins*".
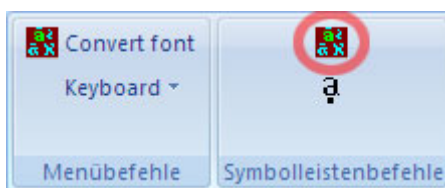
If the red MultiKey symbol does not appear, the Office Startup folder was not found during automatic installation and you must manually copy the file "MltKey97.dot" to the Startup folder as standard. This folder can be found under "C:\Program Files\Microsoft Office\OFFICE 12\STARTUP".

MultiKey installs the font "Aisa Unicode" with four font styles in the Windows font folder.

To use MultiKey, you first have to lower the macro security level. In the Word options (accessed via the "*File*" menu), click on "*Trust Center / Trust Center Settings… / Macro Settings*". Select "*Disable all macros except digitally signed macros*" and confirm by clicking OK.

Once MultiKey has been correctly installed, whenever Mircrosoft Word is launched the security alert **"Macros have been disabled"**.

Now click on "*Options*" and install the certificate with which the macro project was signed in the document templates. This allows the certificate to be included in the list of "trusted sources" and the security alert will not appear in future.

A brief summary of the most important MultiKey functions:
F11 switches to the Greek characters (font "Aisa Unicode"),
F10 switches to the "Latin" characters (font "Times New Roman").
F12 shows the MultiKey dialog box with all available fonts.
Use **Ctrl-Shift-Alt-X** to turn off MultiKey.

Usage: Letter + modification character = new shortcut,
e.g.: First **"A"**, then "+" gives you **"Á"**

Modification characters			
Latin		*Greek*	
Acute	+	Acute	+ or /
Grave	*	Grave	* or \
Circumflex	=	Circumflex	~ or =
Tilde	~ or = =	Spiritus lenis	<
Diaeresis	| (AltGr + „<")	Spiritus asper	>
Caron	#	Diaeresis	#

It is possible that some shortcuts will not work if Windows XP is used and "NumLock" is switched on. If that is the case, temporarily switch off "NumLock".

The MultiKey conversion tool can be found in Microsoft Word under "*Add-ins / Menübefehle / Convert font*".

"Windows Vista" users have a new version of the "Times New Roman" font installed and do not need to use the "Aisa Unicode" font.

To switch from "Aisa Unicode" to "Times New Roman" for Greek characters, you need the file "MultiKey Preferences" in the MultiKey folder. Open the file and for the option "Use the following font for Greek (F11):" select the font "Times New Roman" instead of "Aisa Unicode".

Further information is available in German in the brief instructions (MltKey.doc) and in the comprehensive English instructions (Multikey2000.doc), which can be found in the MultiKey folder.

2.1.11 Some tips on formatting

To structure a Word document, you have to format the text with styles. We distinguish between paragraph styles and font styles.
When assigning a style to a paragraph, first ensure that the whole paragraph or – as a more simple procedure – that nothing in the paragraph is justified.

You have three options for assigning styles:

1. Select a paragraph or font style from the style menus or a character style via the shortcuts in the ribbon.
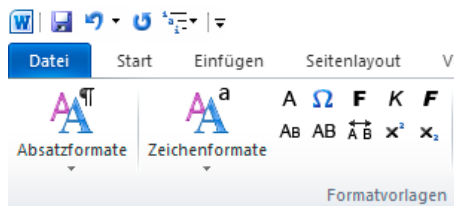
2. In the ribbon, click on the "*Template List*" button. The "*Styles*" window appears to the right of screen and you can then assign a style by clicking on it.
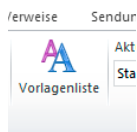
3. Select a style from the Quick Styles catalogue (indicated by the thumbnails with "AaBbCc") in the "*Home*" tab in the "Styles" group.

Visually, it makes no difference whether you format your text manually (e.g. with altered font attributes, indents and spacing) or simply use the appropriate styles. Formatting is important however for the structure and further editing of the data.

Before you start work, here are some pointers that are important for further production:

Typographical quotation marks	German „____" ,____' English "____" '____' French »____« ›____‹ «____» ‹____› Use the correct quotation marks, so that there are no complications in the processing of your data later on. To this end, please check your settings under "*Review / Proofing / Set Language*" and "*File / Options / Proofing / AutoCorrect Options / AutoCorrect… / AutoFormat As You Type / Replace as you type / "Straight quotes" with "smart quotes""*" or use the function "*Insert / Symbols / Symbol*".
"To" (e.g. "pp. 7–10")	[Ctrl] + [-] (on the number pad)
Non-breaking space	[Ctrl]+[Shift]+[space bar]
Blank lines	Only add blank lines between paragraphs where they are actually necessary. For smaller line spaces, use the paragraph style "Standard mit Absatz".
Bullets	For bulleted lists, e.g. "1.", "a)", "●", "–", use the designated paragraph styles "Aufzählung or "Aufzählung 2" (bullets) (for the second tier). Please don't use Word's automatic bullet points, since they are not adopted properly by most layout programs.
Emphasis	bold, italics, small caps, letter spacing, superscript, subscript, AllCaps (block capitals). The designated character styles can be used for this purpose. Some tips based on practical experience: end the formatting before subsequent years in small caps. When using superscript or subscript, use consistent values (e.g. higher by 3 pt). If upper case is to be used for emphasis, do not write the text in upper case, but use the character style "AllCaps" or format the text using Ctrl-Shift-G.
Tabs	When a tab character is inserted using [Tab], Word uses certain standard spacings. The default spacing is 1.25 cm – that is, the first column begins at 1.25 cm, the second at 2.5 and so on. These values are usually useless for clean formatting. To create lists or other features that require indents, define individual tab stops via the dialog box ("*Home / Paragraph / Show the Paragraph dialog box (accessed via the small arrow below right) / Indents and Spacing*") or by using the Word ruler *(The ruler bar on the vertical ScrollBar).*

Tables	Tables are automatically incorporated with the entire content using layout programs such as InDesign, Framemaker or 3B2. Using the function "*Insert / Tables / Table / Insert Table*", you can insert an empty table with the desired number of columns and lines. After inserting the empty table, justify the entire table (Shift-Alt-Num 5) and assign it the paragraph style "Table Text". If individual cells are centered or other changes are necessary, use manual formatting. Select a uniform design for the tables.
Text Boxes	Under no circumstances should you use the option "*Insert / Text / Text Box*"; this applies not only to tables, but in general. Text boxes are not recognized by any layout programs!
Labels/References Automatic Table of Contents Automatic index	Many authors use these convenient automatic features in Word. Care must be taken however to ensure that automatic features are used correctly, especially when creating several indices.
Index entries	Index entries are recognized by layout programs, i.e. an index can be further edited using InDesign, FrameMaker or 3B2 – but only if the index entries exist when the Word document is imported. To create index entries:

- Justify the text that you wish to use as an index entry.
- Press Alt-Shift-X or select "*References / Index / Mark Entry*".
- You can also edit the text in the "Main entry" box (sometimes it is necessary to spell a word differently in the index than in the text itself) or create a subentry.

Footnotes / Endnotes	Footnotes or endnotes can be added using the command "*References / Footnotes / Insert Footnote*". The correct paragraph and character styles are used automatically here. The document templates have integrated macros that insert a tab character before and after each footnote or endnote so that the formatting is correct. Please use each required macro ("*Tabs im Fußnotentext einfügen*" or "*Tabs im Endnotentext einfügen*") only **once** per document, that is, only **after** completing the document, since otherwise additional tab characters will be inserted. In individual cases you can of course manually insert the tab character required.
Special characters	You can use the "MultiKey" tool for texts in foreign languages. Individual special characters can be inserted via "*Insert / Symbols / Symbol*", via the Windows Character Map or the keyboard using the Alt code (e.g. Alt-0169 for the Copyright symbol). It is important however that you only use fonts that correspond to the Unicode standard. When entering

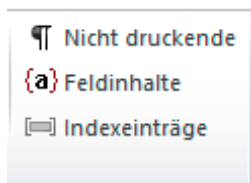|	
	Alt codes, hold the "Alt" key down and enter the code on the number pad.
Hyphenation, carriage returns	The option "*Page Layout / Page Setup / Hyphenation / Automatic*" activates hyphenation auto on, the benefits of which are only cosmetic however. It is not necessary for further editing with layout programs. Please note that manual line or page breaks are not necessary and that under no circumstances should you use manual hyphens at the end of a line.
Show non-printing formatting marks	Use the corresponding buttons in the ribbon to show or hide all formatting marks. Here you can also show and change the XE fields for index entries (e.g.: { XE "Index entry:subentry" }).
Images/graphs in Word	If images or graphs are used in Word, they must be provided as separate files. Images and graphs should be provided as TIFF or EPS files, and color images and graphs should be provided as CMYK files, and in the correct size to fulfill the requirements of further production, particularly the printing process. For further advice, see the chapter "Scans/images".

Some final pointers:
- **Files should be named in accordance with the examples provided in chapter 2.1.6 under "Document names".**
- **The data medium should only have the files required. A brief list should be sent with it containing the file names and any notes concerning automatic features used, the condition of the images and graphs provided, etc.**
- **To be on the safe side, indicate which spelling system you are using.**

2.2 XML editors with content management systems

Encyclopedic or similar texts following the logic of a predefined scheme are suitable publications for an XML editor.

For this kind of publication the specific procedure must be discussed with publishing house staff responsible for electronic publications.

The files for digital objects (e.g. for individual specialist articles, biographies, geographical objects etc.) are formatted in XML so that a website can be uploaded to the server as an online encyclopedia.

      The files should be provided as XML 1.0 and the corresponding DocumentTypeDefinition or schema (XSD compatible with Word 2003, see also "Microsoft Word as an XML Editor"). Additionally, the server requires a style sheet for the server-sided HTML transformation for the short, long and media view of each encyclopedia entry.

2.2.1 XML – a brief overview

XML describes the structure and content of a document. All XML files (including those without DTD) must be constructed in accordance with given rules.

1. All elements must be closed afterwards.
2. Input is case-sensitive.
3. The elements must be nested correctly.
4. All XML documents must have a root element.
5. All values must be in quotation marks.
6. Several consecutive spaces are not ignored in XML.

The main part of the document consists of the data. They are structured between the tags and in the tags as attributes.

A documents definition file (DTD file) describes the structure of an XML document. Here we have the individual possible tags and attributes. Moreover, the sequence in which the individual elements may appear is precisely arranged.

Formatting is not determined by the XML file. Using XSL, an XML document can be converted into another document, especially into HTML format.

Advantages
- Completely independent from hardware and software
- Publication of data in different media
- XML can be used for many applications: as a database, as document management or to administrate entries, lists etc.

2.3 Classical Text Editor

The program Classical Text Editor (for *Microsoft Windows*) offers special functions for the production of scientific work: critical apparatus, footnotes, marginalia, line counters, Unicode support, MultiKey support, cross references, indices, writing from right to left and many more elements.
http://www.oeaw.ac.at/kvk/cte/

As in point 2.2, here too you should check with the book production department whether it is worth using this fee-based program for your publication.

2.4 Microsoft Word as an XML editor

With the 2003 and later versions of Microsoft Word it is possible to edit XML files in Word. If doing so, it is important to use schema files (XSD), which are used as successors to DTD files. For further details and templates for using Microsoft Word 2003 as an XML editor for the creation of structured electronic publications, please visit http://hw.oeaw.ac.at/ep .

3. SCANNING BLACK AND WHITE AND COLOR IMAGES

Line-/grayscale-/color images
These templates are usually captured using a scanner. The technical requirements also apply to photographs from digital cameras. The quality of the images is determined by three main factors:

1. the scanner/camera (optical, mechanical and electronic components)
2. the software (scan software, image converter etc.)
3. the user

The sum of the individual components determines the quality of the final image. This chapter outlines the basic requirements for offset printing. Topics such as color management, color spaces, image retouching and correction are not covered by these guidelines. There are a number of books dealing with these subjects.

Technical requirements for line images
– Scan resolution of 600 to 800 dpi
– Size corresponds to intended use in the publication
– Important: remove dust and scratches
– Save as: TIF with LZW compression (without loss of data!)

Technical requirements for grayscale images
– Scan resolution of 300 dpi
– Minimum 5 percent, maximum 95 percent black (set white point before scanning!)
– Size corresponds to intended use in the publication
– Save as: Photoshop-EPS (if compressed, then as a JPEG in maximum quality) or as a TIF with LZW compression (without loss of data!)
– Important: check gray balance of images!

Technical requirements for color images
– Scan resolution of 300 dpi
– Size corresponds to intended use in the publication
– When converting images to CMYK: use separation settings for European offset printing: maximum color application 350 percent with a maximum of 95 percent black.
– Save as: Photoshop-EPS (if compressed, then as a JPEG in maximum quality) or as a TIF with LZW compression (without loss of data!)
– Important: image color correction requires color fidelity. This can be achieved either by calibrating the monitor, or by checking using color-true proof systems. Commercial monitors and printers do not deliver color fidelity

3.1 Graphs

Graphs should be created using the appropriate professional programs. The general benefit of these programs is that they are able to export or save vector graphs in EPS format (Encapsulated PostScript) (e.g. Adobe Illustrator, Macromedia Freehand, CorelDRAW, CAD-Program etc.). Graphs produced in PowerPoint, Word or Excel always require further production; they also suffer from considerable color deviations when converted into printable data.

When creating graphs, you should pay particular attention to font size. Fonts in graphs created in A 4 format can prove almost illegible when reduced for a 15×22.5 cm publication. The lines used should not be under 0.3 pt.

Important:
- Spot colors should only be used when they are also intended for print.
- Professional graph programs also use different color spaces – please ensure that the color space CMYK is used for the document and that all colors are defined in CMYK.
- Vector graphs – unlike pixel graphs – can be scaled without a loss of quality.
- Fill patterns from CorelDraw are not accepted by other programs. Pie and bar graphs should therefore be produced using grayscale and not color fill.
- To avoid font problems in graphs, before creating the final graph, create a version in which all fonts are converted into paths. This means it is not necessary to provide the fonts used and it eliminates potential problems in later production (relating to layout/breaks at the printers) from the very outset.

Organization of image and graph data

A significant factor for further editing data is organization. Clear naming and suitable sizes and formats can drastically reduce the amount of work required here.

RGB data

While in theory RGB data can be processed by both offset and digital printers due to technical settings, in practice they should only be used if there is no other alternative or the entire workflow (color management, calibration, ICC profile for the printers and types of paper in question) demands it. RGB data are always converted to CMYK for printing; color deviations are hence inevitable, since the RGB color space is considerably larger than the CMYK color space.

You should certainly get in touch with the book production department, even if production has already commenced. Tel. +43 1 51581 extensions 1282 and 1287, email: buchproduktion@oeaw.ac.at .