A TEMPLATE FILE EXPLAINING THE FORMATTING AND CONTENT RELATED REQUIREMENTS OF THE JOURNAL PUBLICATIONS IN GEOMATICS

László Bányai\*, Gábor Papp\*, Anna Szlávy\*

This paper summarises those instructions and rules which should be followed by authors during the preparation of texts. These are defined on the basis of standards for different international scientific journals. This file should be applied as a template for Microsoft Word running on post Windows XP platforms due to the backward compatibility problems of the Equation Editor. The best way to use it is just to copy your own text to the corresponding sections of the template using the function “unformatted paste”.

Keywords: requirements, Publications in Geomatics, template for MS Word

# Introduction

The usual standards applied by the leading international scientific journals were approached when the consistent outlook of the Publications in Geomatics was defined. The work of the editorial board is voluntary therefore only minor necessary formatting corrections are affordable at the end of the review process. The Authors are kindly asked to follow and apply the general rules given below. Special attention should be paid for the space saving by the proper placement of text blocks, figures and tables. It makes the final technical editing of the manuscript easy. Please, use the hyphenation function whenever it is possible.

The different WORD versions should not be mixed during the revision process because it might make the editing of the equations very difficult. The editorial board has no capacity to retype full mathematical derivations.

# General requirements on the content

The first elements of a manuscript in the order of appearance are the title, the abstract and the keywords. It is practical to formulate these elements after the writing of the main parts of the manuscript because their main purpose is to expose the topic, the applied methodology and the results and draw the attention of the readers to them. The title page of a printed paper is always available on the web page of the journal in order to help the search on the internet.

A scientific publication has three main parts at least.

The first part is the introduction which describes briefly but still consistently the main achievements, problems, etc… of the research field discussed by the manuscript. It also gives an overview of the methods, data and investigations applied and of the structure of the discussion.

The second part is the discussion which can be subdivided by a series of sections and subsections according to the needs. This part is devoted for the detailed presentation the theoretical background of the investigations, the data analysed and the results obtained by the application of the presented methodology.

The third part is the summary which concludes the investigations by a systematic presentation of the new results and achievements. It, however, is not a simple repetition of the details given in the discussion.

The manuscript ends with optional acknowledgement and an obligatory list of references. The References may contain *only papers which were subjected by a peer-review process, are accessible by anyone and were edited, accepted and published by responsible editorial boards and publishers.* Moreover the referred papers must be adequate for the contextual environment of their occurrence. The possible formats and styles of referencing will be given Section 3.3. Studies published and accessible on the Internet exclusively are accepted as reference only if the publishing platform is *a refereed digital/on-line journal*. The measure of referencing should be sufficient to show the state-of-art of the research field and justify the novelty of the research results.

The numbering of sessions is obligatory because it helps the orientation and referencing.

Although there are no hard page limits but in case of longer manuscripts (page number > 10) the Authors should consult with the editorial board prior to uploading their manuscript to the editorial system of Publications in Geomatics. The printed papers start always on uneven page number therefore it is practical to write a manuscript having even number of pages whenever it is applicable.

Due to financial reasons colour printing is just exceptionally possible. Consequently the use of colours should be adjusted to what is provided by a black and white (BW) printing, producing grey tones for the colours. To avoid the problem of misidentification the figures should be edited and produced using only grey scales. If the application of colour figures is unavoidable, the extra cost of it has to be provided by the Author(s).

# General formatting rules

The manuscript should be prepared as an MS Word (\*.docx) document. *The best solution is to type the text into this template file containing all the necessary format settings.*

The text should be typed using Times New Roman font set with character size of 10pt and simple line spacing. For the use of characters having different size, italic style and/or bold typesetting of section headings and of other display-work the format features predefined in this template should be applied.

The indent of the first line of a paragraph is 0.5 cm. As exception there is no indent before the section headings, after the figures, tables, equations, listings and on the top of the page.

The section headings are left justified. There are two spaces after the section number. Empty lines should not be used to control the vertical space between different units of the manuscript.

Moderate application of display-work is suggested, use just *italics* to draw attention to important context or details.

The accumulation of 6 pt and 12 pt spacing between the units of the manuscript (section headings, figures, tables and equations) should be avoided.

## Figures and tables

Both the figures and the tables should be justified to the centre defined by the page layout. The number and the caption of a figure and a table should be placed after the figure (Figure 1) and before the table (Table 1) respectively. No full stop should be applied at the end of the last sentence of a caption. The character size of both the numbers and the captions should be 8 pt, but the number and the type of the numbered unit (figure or table) should be bold. 6 pt high space should be kept before and after the envelope of a figure and a table. Accumulation of the space should be avoided.

The application of any kind of frames around figures is not allowed. The tables should contain only thin horizontal lines before and after the first and the last rows of the table, respectively and to separate headings.



Figure 1. Transformed aerial photo in the background of a digital cadastre map

Table 1. Some parameters of the gravity meters and of the measurements derived by adjustment

|  |  |  |  |
| --- | --- | --- | --- |
| gravimeter | scale factor | number of obs. | standard deviation [mGal] |
| LCR–G 220 | 0.996663 | 184 | 0.015 |
| LCR–G 821 | 1.000590 | 272 | 0.013 |
| LCR–G 963 | 1.000446 | 583 | 0.016 |

The units should be put in square brackets and displayed in the headings of rows and/or columns only once for all corresponding table elements or should be defined in the table caption, alternatively.

The texts displayed on the figures should be readable and it has to be checked by a test BW print using no scaling of the B5 page format of this template. The visibility provided by the screen can be misleading since the real size of the printed material is even a bit smaller than B5 due to the printing technology. The author(s) is (are) exclusively responsible for the quality and unambiguous outlook of the printed figures. This is especially important in case of colour figures. As a rule of thumb black, white, light and dark grey (i.e. 4 shades) lines and spots can be easily distinguished by anyone. Use different line thickness, style, filling patterns and markers to help the reader to identify and interpret correctly the contents of the figures.

Coordinate frame with units (or scale) must be provided for maps regardless they are raster or vector representations.

Citing of figures and/or tables is *obligatory* in the text. A correct way to do that is putting the number and the type of the referenced object (figure or table) into brackets, e.g. (Figure 1). If it has a grammatical role in a sentence the brackets should not be applied. E.g.: Table 1 shows the accuracy of the gravimetric measurements.

The figures and tables should be placed on the top or bottom of a page not so far from the first occurrence of its citation whenever it is possible. Several figures and/or tables can be located on one page but in this case the accumulation of unnecessary space between them should be avoided.

If usable space remains on a page before/after/between figures and/or tables the text to be inserted should not be too short. Preferably a whole paragraph should be applied to fill this space.

It is practical to insert the figures and/or tables into the correct locations when the writing of the full text is more or less ready. If necessary the smaller figures and/or tables can be placed side by side in two-column format (Figure 2). Use the letters of alphabet to identify sub-charts.

## Equations, symbols and mathematical notations

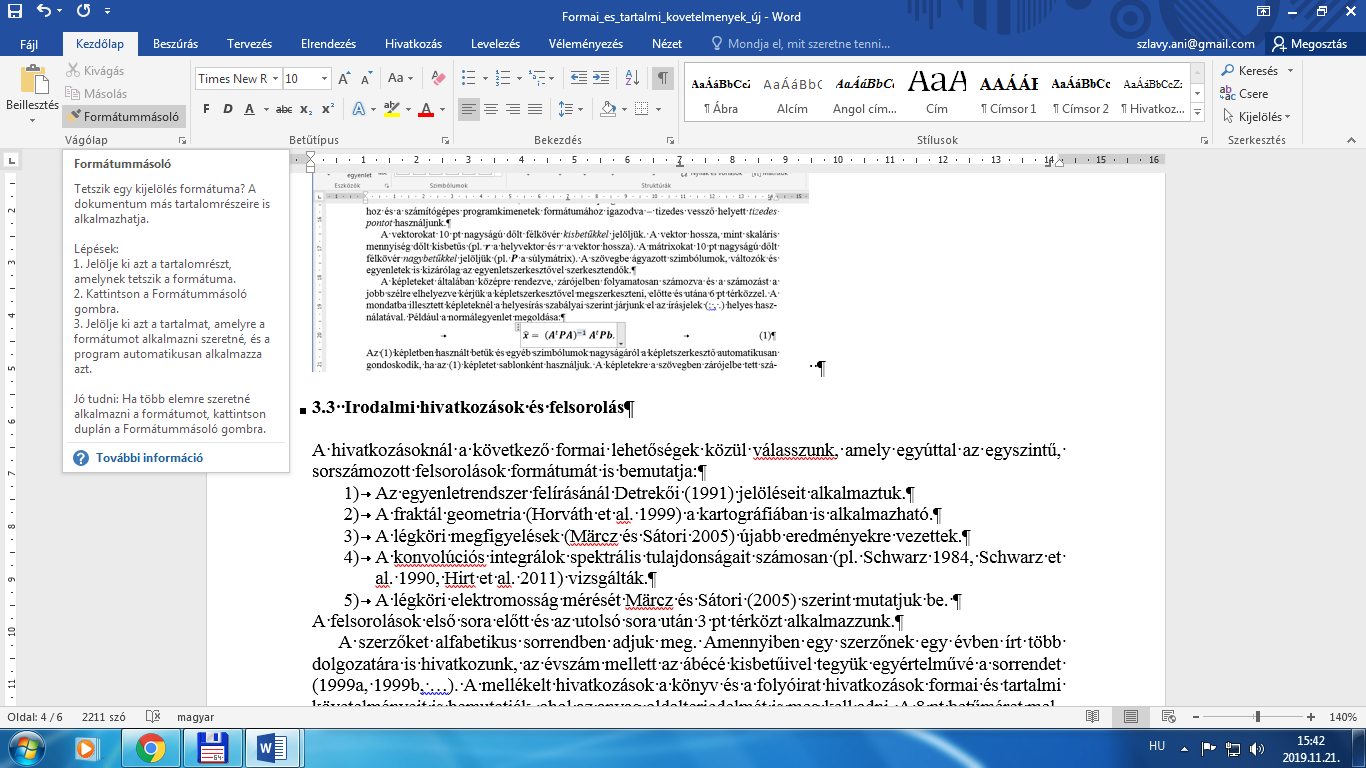
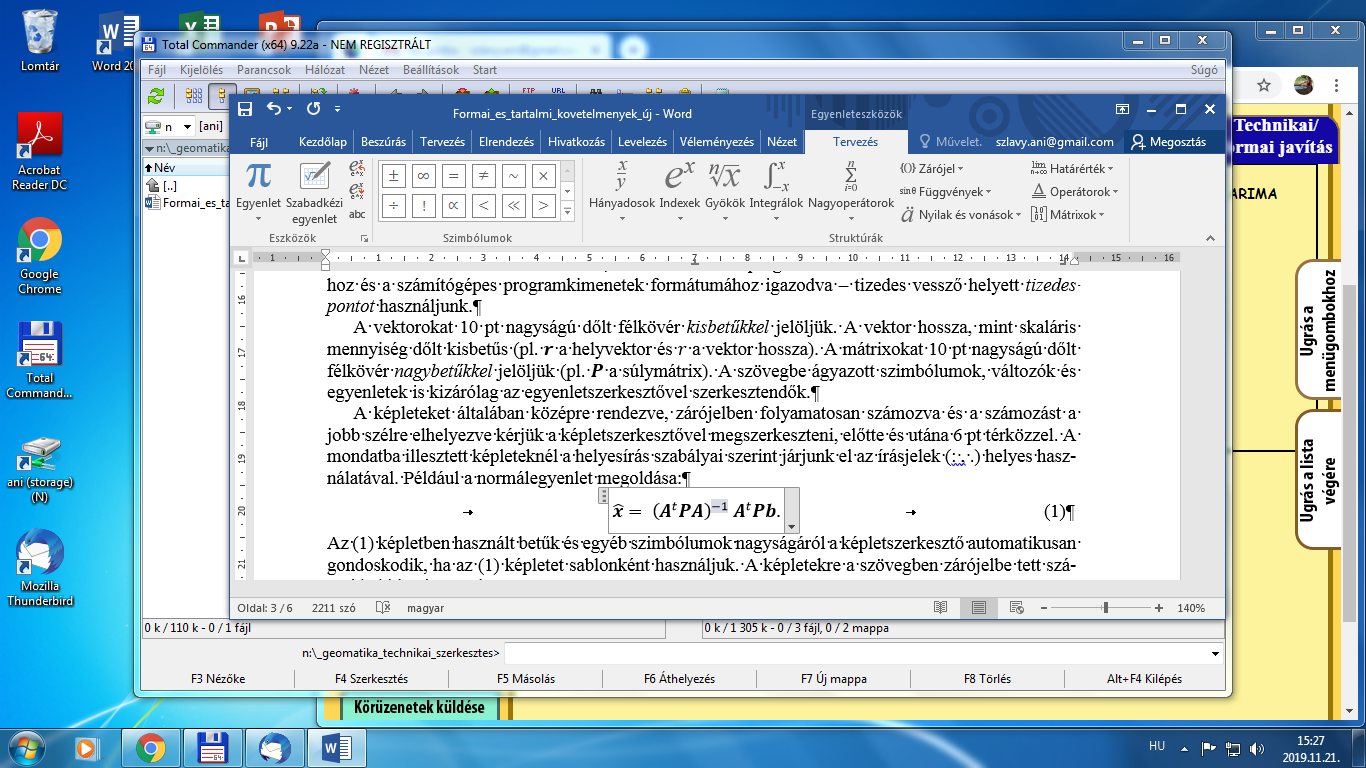
According to international standards the size and style of the constant variables are 10pt and italic, respectively (e.g. the speed of light ) and those *must be typed by the Equation Editor (EE) of MS WORD.* Please note that the font type used by it is Cambria Math so in any case when even if a single symbol has to be applied in the text EE has to be used! The numerical constants and the units are always normal characters (e.g. ).

Vectors are annotated by *italic*, **bold** and lower-case letters. The length of a vector is annotated by an *italic* and lower-case letter (e.g. and are the place vector and its length, respectively). Matrices are annotated by *italic*, **bold** and UPPER-CASE letters (e.g. is the weight matrix).

Generally the equations should be placed to the middle cell of an invisible table justified to the centre of the cell and numbered continuously. The numbering is right justified in the right cell whereas the left cell is empty. 6pt space should be applied before and after the numbering to provide correct alignment of the equation and its number. If an equation forms a grammatical unit of a sentence the use of correct characters (: , .) is required according to the general grammatical rules. For instance, the solution of the normal equation is given by:

(1)

The size of the letters and symbols used in (1) is given by Figure 2. Consequently, the number of referenced equation should be embraced by brackets.

a) b)

Figure 2. The sizes and styles of the letters and symbols in mathematical environment. Please note that it shows the configuration tools of the old style Equation Editor of MS Word. a) Setting of the font size. b) Setting of the font style

## Citations and listings

The style of citation should be selected from the list of the following variants. This is also an example for a simple, single level numbered listing:

1. The notations of Detrekői (1991) were applied to formulate the equation system.
2. The fractal geometry (Horváth et al. 1999) can be used in cartography too.
3. The long term monitoring of atmospheric electricity (Märcz and Sátori 2005) led to new and interesting results.
4. The characteristics of convolution integrals were investigated extensively (e.g. Schwarz 1984, Schwarz et al. 1990, Hirt et al. 2011).
5. The method of the observation of the atmospheric electricity is presented based on the work of Märcz and Sátori (2005).

Before and after the first and last rows of the listing, respectively, 3pt – 3pt space should be applied.

The authors in the References should be listed in alphabetic order. If the author(s) has (have) more than one publication in a specific year, the order of the papers should be indicated by appending the letter of alphabet to the year (e.g. 1999a, 1999b, …). The References at the end of this document shows the style and content of book and journal referencing required by Publications in Geomatics. The authors should be typed in bold with 8pt letter size. *Please note that Publications in Geomatics does not accept either oral/poster presentations or abstract collections or CD distributed materials.*

Web-based citation is acceptable *only if it is provided by an on-line digital journal applying the standard peer-review scheme*. Other types of web-referencing should be inserted to the text (not in the References) closed in to brackets and indicating the date of the last successful access, e.g.

(www.geomatika.ggki.hu/kozlemenyek/files/Formai\_es\_tartalmi\_kovetelmenyek.doc, 2010-11-12). Obviously, the author is exclusively responsible for the content and accessibility of such a citation. The same procedure should be followed in case of unpublished materials (e.g. internal reports) which should be cited as personal communication (e.g. Papp G personal communication).

The next is an example for an unnumbered, multi level listing:

* first point
* second point
  + first sub-point
  + second sub-point
* third point
* fourth point

Similarly to the numbered listing 3pt – 3pt space should be kept before and after the list and no indent should be applied at the beginning of the next paragraph.

## Headers, footers and footnotes

Generally the editing of the headers and footers is the task of the technical editor of the journal. On the title page of the paper, however, the footer contains the affiliation, postal- and e-mail address(es) of the author(s) so the corresponding author should fill this section.

The application of footnotes, due to the small 8pt letter size, should be avoided.

# Summary

This document was prepared according to the format requirements of the journal Publications in Geomatics and it discusses hopefully all the basics of the preparation of a scientific paper. Consequently *its application as a template is strongly encouraged* and offered to the authors interested.

The definite intention of the editorial board is to maintain and develop the quality standards of the journal regarding both the format and the content, contributing by this to the success of that professional community which works on the field of Geomatics.

***Acknowledgement*** − The journal is published from the kind financial support of the biannual Seminar on Geomatics and occasionally such professional institutions and organizations like the Geodetic and Geophysical Institute, Research Centre for Astronomy and Earth Sciences and the Soproni Tudós Társaság (Association of Scientists Sopron).

References

Detrekői Á (1991): Adjustment calculations (in Hungarian). Tankönyvkiadó, Budapest. 685.

Hirt C, Featherstone WE, Claessens SJ (2011): On the accurate numerical evaluation of geodetic convolution integrals. Journal of Geodesy, 85(8), 519-538, doi: 10.1007/s00190-011-0451-5

Horváth R, Németh L, Szalay L, Závoti J (1999): Introduction to fractal geometry. Geomatikai Közlemények, 1, 185-188.

Märcz F, Sátori G (2005): Long-term changes in atmospheric electricity and the multivariate ENSO index. Acta Geod. Geoph. Hung., 40(3-4), 379-390. (explanation of numbers: volume 40, number (3-4), page to page 379-391)

Schwarz KP (1984): Data types and their spectral properties. In: KP Schwarz (ed.), Proceedings of the Beijing International summer school on local gravity field approximation, 1-66, China.

Schwarz KP, Sideris MG, Forsberg R (1990): The use of FFT techniques in physical geodesy. Geophys. J. Int.   
100, 485-514.