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Geographical Names

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REPORTS OF THE WORKING GROUPS

Summary Report of the Working Group on
Toponymic Data Exchange Formats and Standards*

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Working Group

Summary Report of the UNGEGN Working Group on “Toponymic Data Exchange Formats and Standards”

Introduction

1. At the 18th session of the United Nations Group of Experts on Geographical Names (UNGEGN), in Geneva, in 1996, a working group on “Toponymic Data Exchange Formats and Standards” was formed to investigate and recommend on the requirements, standards and formats which are available for the encoding, processing, international exchange and promotion of nationally standardised geographical names for international use.
2. This summary report presents the findings of the WG for consideration by UNGEGN and the Seventh UN Conference on the Standardization of Geographical Names.

Need for the Working Group

3. Experts at the 18th UNGEGN recognised that many countries had made significant progress with the recording of geographical names files and data bases in support of map and gazetteer production and to meet other administrative, toponymic, national and international purposes. However, this was being achieved in individual and different ways and in the absence of internationally agreed formats and standards for the coding, processing and exchange of names data.
4. It was felt that the introduction of an internationally agreed digital format for gazetteers and the use of international standards for the encoding of character sets could assist international standardisation of geographical names.
5. Accordingly, the WG was set up to investigate and report on the potential of the existing and developing standards to allow countries to record, preserve and promote digitally their individual toponymic heritage whilst encouraging, through international exchange and publication, the international use of nationally approved and standardised names.
6. At UNGEGN the Experts recognised that the establishment of toponymic web sites on the Internet by several countries gives considerable impetus to the promotion, standardisation and international use of nationally approved geographical names. But, for that potential to be realised by more countries, there is a need for achievable, low cost hardware and software solutions for names data processing and a need for easy to implement international standards and formats for toponymic data.

Working Group Membership and Meetings

7. As established at the 18th UNGEGN the working group members were:

Mr R Marsden Head of Geography and Geodesy, Military Survey, London, UK; and member of the UK Permanent Committee on Geographical Names (PCGN) (Convenor of the WG).

Mr R Flynn Executive Secretary for Foreign Names, United States Board on Geographic Names (BGN); and Geographer, National Imagery and Mapping Agency, Washington, USA.

Mr P Päll Head of Department of Grammar, Institute of the Estonian Language, Ministry of Education, Tallinn, Estonia.

8. The WG has met three times in the PCGN offices at the Royal Geographical Society, London and once at the Institute of the Estonian Language, Tallinn. However, significantly, much of the work has been exchanged between London, Tallinn and Washington using e-mail on the Internet. The full report highlights those exchanges to emphasise the extent to which international exchange of toponymic data is now readily achievable with low hardware and software costs.

Summary of Work Accomplished

9. The WG has completed a survey of the requirements for the text encoding of nationally approved and standardised geographical names and a review of the suitability of the existing international standards to meet the requirements for national and international names standardisation and international exchange. The WG has proposed a first international digital gazetteer standard format for names data and an outline for the essential descriptive metadata which must accompany the names data to assist users. The full report to the Conference contains the results of the survey and an analysis of the practical aspects of a programme to implement the findings.

Conclusions

10. The WG has reached the following conclusions:

- a) The promotion of nationally standardised and approved geographical names for international standardisation and use requires international agreement on "Toponymic Data Exchange Formats and Standards".
- b) Digital recording, processing, publication and exchange of nationally standardised and approved geographical names written in roman, extended roman and non-roman writing systems is technically achievable now, by most countries, at relatively low costs for hardware and software.
- c) The publication of nationally approved and standardised geographical names on the Internet, or on magnetic media, has considerable potential to meet UN goals and conference resolutions for the international standardisation of names and significant potential to allow countries to preserve and promote their individual toponymic heritage.

- d) The current international text encoding standards (ISO/Unicode) meet most of the requirements for geographical names recording, processing, exchange and publication.
 - (i) 8 bit and/or 16 bit text encoding standards can be implemented now for many languages.
 - (ii) The remaining languages, with a few exceptions can be supported only with a 16-bit text encoding standard.
- e) The implementation of a practical programme of digital toponymic data exchange is handicapped by the incompatibility of some current commercial software with the international text encoding standards.
- f) The WG has proposed an exchange format for digital names data, gazetteers and accompanying explanatory data which is based upon previous UN resolutions for hard copy gazetteers. This digital format could be used to promote international standardisation and use of nationally approved geographical names far more effectively than has been possible through hard copy means.

Recommendations

11. The WG makes the following recommendations:

- a) Countries should aim to promote their individual toponymic heritage and the international standardisation and use of their nationally approved and standardised names by all available means including the Internet and digital gazetteer publication and exchange.
- b) Countries should review the text encoding requirements for geographical names which are included in the WG full report to identify any additional requirements. These might be notified to UNGEGN through "Toponymic Guidelines".. Additional requirements may require extensions to the international text encoding standards which should be taken up by each country's standardisation authorities with ISO/Unicode.
- c) Countries should promote the international standardisation of geographical names through the digital exchange and publication of names and associated data using the formats and standards which have been proposed by the Working Group. Those dealing with the automation of geographical names are encouraged to use software which is compliant with the international text encoding standards identified in the report.
- d) The requirements for "Toponymic Data Exchange Formats and Standards" should be kept under review by the Working Group on Toponymic Data Files and Gazetteers.
- e) The Working Group on Toponymic Data Files and Gazetteers should encourage the implementation of the digital gazetteer exchange formats and encoding standards by countries, through the UNGEGN Divisions; and with the Unicode consortium as a user group and as an example of application of the standards.