SIXTH UNITED NATIONS CONFERENCE ON THE
STANDARDIZATION OF GEOGRAPHICAL NAMES
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TOPONYMIC DATA FILES: AUTOMATIC DATA PROCESSING (ADP) SYSTEMS

Automated data processing in Japan

Paper submitted by Japan**

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** Prepared by the Government of Japan.

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With the spread of the use of computer systems in governmental agencies and private enterprises in Japan, information concerning geographical names has been commonly processed by using computers.

An administration code number is assigned by the Japanese Industrial Standard (JIS) to each local government, a total of about 3,300. Data files with the names of local governments and their code numbers have been completed and are widely used by many agencies and companies.

The data file containing the names of local governments and their sub-villages was compiled by the Local Authorities Systems Development Centre and the Japan Geographical Association, which are extragovernmental organizations of the Ministry of Home Affairs. About 450,000 place-names, along with their data category, spelling, spelling in "Katakana" (phonetic spelling) and other information are stored in magnetic tape files. Several private companies also keep these types of data file, which are available to the public.

With regard to the names of natural features and other conventional place-names, the geographical names standardized by the Joint Committee on Standardization of Geographical Names have been digitized by the Geographical Survey Institute. Regarding approximately 9,000 geographical feature names and local governments' names, which are to be shown on 1:500,000 maps, such information as data category, spelling of the name (in "Kanji", "Hiragana" and "Katakana"), phonetic spelling in "Hiragana", spelling in roman letters, corresponding code number, map name and position have already been stored on magnetic tape files.

The Geographical Survey Institute will complete a geographical names data file of Japan by 1992. This file contains 120,000 geographical names on regional maps drawn at 1:200,000 scale.

**Data file based on the 1:200,000 scale regional maps**

The data elements of the data file are as follows:

(a) **Map sheet name**

The names of sheets containing the place concerned in both a 1:200,000 scale regional map and a 1:50,000 scale topographic map are recorded.

(b) **Identity number**

The sequential number of a geographical name is recorded.

(c) **Feature classification**

Geographical features are classified into 10 classes, such as administrative division, summit, lake, river, sea area, beach, island, broad natural feature, transportation facility and others. Some classes are further
divided into subclasses. The feature class for a geographical name is recorded. The size and spacing of characters can be known by the feature class, since this classification accords with the lettering rules of the 1:200,000 scale regional maps.

(d) Administrative division code

The code number of the administrative division, where the geographical entity is located, is recorded. The administrative code numbers have been prepared by the Ministry of Home Affairs.

(e) Spelling

The official spelling, which usually includes ideogram "Kanji" characters, is recorded.

(f) Pronunciation

The pronunciation derived from the geographical names description reported by the local government is recorded.

(g) Number of characters

The total number of characters required to officially spell the geographical name is recorded.

(h) Position of the geographical name on the 1:200,000 scale regional map

The lower left corner point coordinates of both the first and the last characters of a spelt name are recorded. The spacing can be calculated from the coordinate values and the number of characters. For such geographical names as the names of subdivided administrative divisions or railway stations, spacing is fixed according to the lettering rules. Therefore only the corner point of the first character is recorded.

(i) Relation between character orientation and direction of the spelt name

The character orientation with respect to the direction of the spelt name, parallel or across, is distinguished and recorded.

(j) Mispronunciations

Possible mispronunciations of the geographical name, if any, are recorded. Therefore the geographical name can be retrieved even if correct pronunciation is unknown.
Gazetteer based on the 1:200,000 scale regional maps

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<th>掌み方</th>
<th>3次メッシュ</th>
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Key

a. Map sheet name.

b. Code number of a 1:50,000 scale topographic map in the regional map.

c. Spelling.

d. Pronunciation.

e. Tertiary mesh code number. The standard regional grid and mesh code system is based on longitude and latitude coordinates and is used for statistical research. All Japan is divided into more than 100 areas of primary mesh by meridian lines with 1 degree and parallel lines with 40 minutes. The primary mesh corresponds to a sheet area of the 1:200,000 scale regional map. The secondary mesh is defined by dividing the primary mesh area into 8x8 portions corresponding to the 1:25,000 scale topographic map sheet area. The tertiary mesh is defined by dividing the secondary mesh into 10x10 portions. The area of the tertiary mesh is approximately 1 sq km in the central part of Japan.

f. Feature classification.