

## 11.A.1. Search Method

The following gives examples of field configurations used for search. These are just examples, and are not intended to limit uses and data creation methods.

It is assumed that the following field configurations are defined in definition frames.

### 11.A.1.1. Hierarchical Search

The merit of the following example is to keep the data structure compact by using a common definition frame.

#### 11.A.1.1.1. Hierarchical Search (Genre Search) Category Definition Frame

name [Hierarchical Search Category Definition Frame]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	4	C	Data Declaration	'DCTF'	a
2	4	4	C	Data Type	'REAL'	a
3	8	4		(RESERVED)		a
4	12	4	N	Number of Hierarchical Search Category Definition Fields	=23	a
5	16			Hierarchical Search Category Definition Fields (#1 to #23)		a

#### 11.A.1.1.1.1. Hierarchical Search Category Definition Field

name [Hierarchical Search Category Definition Field]

No.	Usage	Description type	Description type declaration	Number of data items	Additional information	Explanatory note
1	'DCTF'	'REAL'	-	-	-	Definition Field Declaration (Items Nos. 2 to 12 below are category parent definitions.)
2	'YOMI'	'NORM'	'ML'	1	-	Reading Data List for Representation Item
3	'NAME'	'NORM'	'ML'	1	-	Display Character Data List for Representation Item
4	'JPSZ'	'NORM'	'UW'	1	-	Jump Table Size
5	'JPLV'	'NORM'	'SG'	1	-	Jump Table Creation Form
6	'JPCT'	'NORM'	'UW'	1	-	Number of Jump Records
7	'SFST'	'NORM'	-	-	-	Start of Field Set
8	'JPKY'	'NORM'	'CH'	2	-	Jump Key
9	'JPST'	'OFST'	'LG'	1	-	Offset to Jump Option
10	'EFST'	'NORM'	-	-	-	End of Field Set
11	'STFG'	'NORM'	'UB'	2	-	Storage Data Flag (Flag indicating the absence or presence of option(child) fields.)
12	'SELN'	'NORM'	'UL'	1	-	Number of Category Option(child) Items

No.	Usage	Description type	Description type declaration	Number of data items	Additional information	Explanatory note
13	'DCTF'	'REAL'	-	-	-	Definition Field Declaration (Items Nos. 14 to 23 are option(child) definitions.)
14	'KYCT'	'NORM'	'UW'	1	-	Type Code -> Genre Search Key
15	'KY50'	'NORM'	'UW'	1	-	Japanese Syllabary Code -> Facility Search Key
16	'FNSZ'	'NORM'	'UL'	1	-	Matching Data Read Size
17	'FNST'	'OFST'	'LG'	1	-	Offset to Matching Data
18	'FNCT'	'NORM'	'UL'	1	-	Matching Data Count
19	'NTSZ'	'NORM'	'UL'	1	-	Next Category Read Size
20	'NEXT'	'OFST'	'LG'	1	-	Offset to Next Category (parent)
21	'NTCT'	'NORM'	'UL'	1	-	Number of Option(child) Items of the Next Category
22	'YOMI'	'NORM'	'ML'	1	-	Reading Data List for Option
23	'NAME'	'NORM'	'ML'	1	-	Display Character Data List for Option

Notes: Rules for the definition of option

1. Items Nos. 8 and 9 are handled as a set, using items Nos. 7 and 10 above. Items Nos. 7 and 10 are not reflected in real data. As many sets of items Nos. 8 and 9 as the number indicated by item No. 6 exist.
2. As in items Nos. 14 and 15 above, define a signature 'KY\*\*' to indicate the use of the "search key." Specify the search key at the top of the option.
3. A description of the number of option items must always be followed immediately by the definition of option.

#### 11.A.1.1.1.2.Hierarchical Search Category Data Frame

A typical example of hierarchical search is described below. (This is just an example.)

name [Hierarchical Search Category Data Frame]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		#1 A Sequence of Genre Search Category Tables	(1)	c
2	01	B2		#2 A Sequence of Prefectural Category Tables	(2)	c
3	02	B3		#3 A Sequence of (Train) Route Category Tables	(3)	c
4	03	B4		#4 A Sequence of Train Station Category Tables	(4)	c
5	04	B5		#5 A Sequence of Government Office Category Tables	(5)	c
6	05	B6		#6 A Sequence of Golf Course Category Tables	(6)	c
				• • • •		

(1) Hierarchical search category table by using type codes

(2) Multiple tables are arranged such as the following:

Prefecture category table for selecting train stations  
 Prefecture category table for selecting government offices  
 Prefecture category table for selecting golf courses

(3) Multiple tables are arranged such as the following:

Train route (in Aichi prefecture) category table  
 Train route (in Aomori prefecture) category table

(4) Multiple tables are arranged such as the following:

Train station name (of XX train routes in Aichi prefecture) category table  
 Train station name (of YY train routes in Aichi prefecture) category table

(5) Multiple tables are arranged such as the following:

Government office name (in Aichi prefecture)category table  
 Government office name (in Aomori prefecture)category table

(6) Multiple tables are arranged such as the following:

Golf course name (in Japan)category table  
 Golf course name (in Aichi Prefecture) category table  
 Golf course name (in Aomori prefecture) category table

#### 11.A.1.1.1.2.1. Genre Search Category Table

name [Genre Search Category Table]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		Hierarchical Search Category Parent Record		a
2	01	B2		A Sequence of Hierarchical Search Category Option(child) Records		a

name [Genre Search Category Parent Record]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		Readings Data List for Representation Item		a
2	01	B2		Display Character Data List for Representation Item		a
3	02	2	SWS	Jump Table Size	(1)	a
4	03	4	CC	Jump Table Creation Form	(2)	c
5	04	2	N	Number of Jump Records	(3)	c
6	05	2	CC	Jump Key (#1)	(4)	c
7	06	4	D	Offset to Jump Option(#1)	(5)	c
8	07	2	CC	Jump Key (#2)	(4)	c
9	08	4	D	Offset to Jump Option(#2)	(5)	c
:	:	:	:	:		
10	09	2	CC	Jump Key (#n)	(4)	c
11	010	4	D	Offset to Jump Option(#n)	(5)	c
12	011	2	B	Storage Data Flag (Flag indicating the absence or presence of option(child) fields.)	(6)	a
13	012	4	N	Number of Category Option(child) Items		a

- (1) This field describes the size of items Nos. 4 to 11. A size of 0 indicates that the fields for items Nos. 4 and 11 do not exist.
- (2) This field describes the signature representing the jump table creation form.  
Example: G1CT (type code: major and middle classifications)
- (3) This field describes the number of records indicated by item No. 6 and subsequent items, a set of "jump key" and "offset to jump option" being assumed a single record.
- (4) As the "jump key," specify the value conforming to the code system of the "search key" of that option in the category. This makes it possible to determine the type of jump table from the "search key" of a option in each category. In this example, specify a type code.
- (5) The "offset to jump option" represents the displacement from the top of the hierarchical search category table to the option corresponding to the "jump key."
- (6) This field describes the absence or presence of the respective fields of option(child), starting with the most significant bit. (0: Absence, 1: Presence)

Because the example is hierarchical search using type codes, specify a value of 1011111111000000(2) to indicate that the field for "Japanese syllabary code -> facility search key" is omitted (because it is not used).

name [Genre Search Category Option(child) Record]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	2	N	Type Code -> Genre Search Key		c
2	2	4	N	Matching Data Read Size	(4)	c
3	6	4	D	Offset to Matching Data	(1)	c
4	10	4	N	Matching Data Count		c
5	14	4	SWS	Next Category Read Size	(5)	c
6	18	4	D	Offset to Next Category (parent)	(2)	c
7	22	4	N	Number of the Option(children) Items of the Next Category		c
8	26	B1		Reading Data List (for Option)	(3)	c
9		B2		Display Character Data List (for Option)	(3)	c

- (1) This field describes the displacement from the top of the "genre search matching data frame" to the top of the present, matching record.
- (2) This field describes the displacement from the top of the "genre search category data frame" to the top of the next, present category parent record.
- (3) Items Nos. 8 and 9 are of variable length. They may be set to fixed length for operational reasons.
- (4) If multiple present, matching records exist, specify the total size of the matching records.
- (5) This field describes the size of the next category (including option). If the next category does not exist, specify 0(16). If the next category does not exist, the matching data is called. If there are multiple items, they are listed.

#### 11.A.1.1.1.2.2. Prefectural Category Table

name [Prefectural Category Table]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		Prefecture Category Parent Record		a

2	01	B2		A Sequence of Prefectural Category Option(child) Records		a
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name [Prefectural Category Parent Record]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		Reading Data List for Representation Item		a
2	01	B2		Display Character Data List for Representation Item		a
3	02	2	SWS	Jump Table Size	(1)	a
4	03	4	CC	Jump Table Creation Form	(2)	c
5	04	2	N	Number of Jump Records	(3)	c
6	05	2	CC	Jump Key (#1)	(4)	c
7	06	4	D	Offset to Jump Option (#1)	(5)	c
8	07	2	CC	Jump Key (#2)	(4)	c
9	08	4	D	Offset to Jump Option(#2)	(5)	c
:	:	:	:	:		
10	09	2	CC	Jump Key (#n)	(4)	c
11	010	4	D	Offset to Jump Option (#n)	(5)	c
12	011	2	B	Storage Data Flag (Flag indicating the absence or presence of option(child) fields.)	(6)	a
13	012	4	N	Number of Category Option(child) Items		a

- (1) This field describes the size of items Nos. 4 to 11. A size of 0 indicates that the fields for items Nos. 4 to 11 do not exist.
- (2) This field describes the signature representing the jump table creation form.  
Example: G150 (Japanese syllabary codes "A, KA, SA, TA, NA, ..., WA)
- (3) This field describes the number of records indicated by item No. 6 and subsequent items, a set of "jump key" and "offset to jump option" being assumed a single record.
- (4) As the "jump key," specify the value conforming to the code system of the "search key" of that option in the category. This makes it possible to determine the type of jump table from the "search key" of a option in each category. In this example, specify a Japanese syllabary code.
- (5) The "offset to jump option" represents the displacement from the top of the genre category table to the option corresponding to the "jump key."
- (6) This field describes the absence or presence of the respective fields for options (children), starting with the most significant bit. (0: Absence, 1: Presence)

In this example, the "type code -> genre search key" is not used and, therefore, the value in this example is 0111111111000000(2).

name [Prefectural Category Option(child) Record]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	2	N	Japanese Syllabary Code -> Facility Search Key	(6)	c
2	2	4	N	Matching Data Read Size	(4)	c
3	6	4	D	Offset to Matching Data	(1)	c
4	10	4	N	Matching Data Count		c

5	14	4	SWS	Next Category Read Size	(5)	c
6	18	4	D	Offset to Next Category (parent)	(2)	c
7	22	4	N	Number of the Option(child) Items of the Next Category		c
8	26	B1		Reading Data List (for Option)	(3)	c
9		B2		Display Character Data List for (Option)	(3)	c

- (1) This field describes the displacement from the top of the "genre search matching data frame" to the top of the present, matching record.
- (2) This field describes the displacement from the top of the "genre search category data frame" to the top of the next, present category parent record.
- (3) Items Nos. 8 and 9 are of variable length. They may be set to fixed length for operational reasons.
- (4) If multiple present, matching records exist, specify the total size of the matching records.
- (5) This field describes the size of the next category (including option). If the next category does not exist, specify 0(16).
- (6) For example, this key can be used to enter Japanese syllabary codes using a dedicated keyboard.

The Japanese syllabary codes are arranged in Japanese syllabary order. In Japan, this key is intended for two-byte hiragana (katakana) only. Basically, this key is not intended for lowercase characters, and voiced and plosive consonant sounds are not used.

#### **11.A.1.1.1.2.3. Route Category Table (for Train Stations)**

The description of the "prefecture category table" applies.

#### **11.A.1.1.1.2.4. Train Station Name Category Table**

The description of the "prefecture category table" applies.

#### **11.A.1.1.1.2.5. Government Office Name Category Table**

The description of the "prefecture category table" applies.

#### **11.A.1.1.1.2.6. Golf Course Name Table**

The description of the "prefecture category table" applies.

### 11.A.1.1.2. Hierarchical Search (Genre Search) Matching Data Definition Frame

name [Hierarchical Search Matching Data Definition Frame]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	4	C	Data Declaration	'DCTF'	a
2	4	4	C	Data Type	'REAL'	a
3	8	4		(RESERVED)		a
4	12	4	N	Number of Hierarchical Search Matching Data Definition Fields	=8	a
5	16			Hierarchical Search Matching Data Definition Fields (#1 to #8)		a

#### 11.A.1.1.2.1. Hierarchical Search Matching Data Definition Field

name [Hierarchical Search Matching Data Definition Field]

No.	Usage	Description type	Description type declaration	Number of data items	Additional information	Explanatory Note
1	'STFG'	'NORM'	'UB'	2	-	Storage Data Flag
2	'FNRS'	'NORM'	'UW'	1	-	Matching data record Size
3	'CTG1'	'NORM'	'UW'	1	-	Type Code
4	'CTG2'	'NORM'	'UW'	1	-	Store Code
5	'POIS'	'NORM'	'UW'	1	-	General POI Information Size
6	'POIO'	'PITR'	'LG'	1	-	Pointer to General POI Information
7	'NAME'	'NORM'	'ML'	1	-	Display Character Data List for Facility Name
8	'FNRS'	'NORM'	'UW'	1	-	Matching Data Record Size

#### 11.A.1.1.2.2. Hierarchical Search Matching Data Frame

A typical example of hierarchical search is described below. (This is just an example.)

name [Hierarchical Search Matching Data Frame]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		Train Station Matching Table		a
2	01	B2		Government Office Matching Table		a
3	02	B3		Golf Course Matching Table		a
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#### 11.A.1.1.2.2.1 Train Station Matching Table

name [Train Station Matching Table]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		A Sequence of Train Station Matching Records		a

name [Train Station Matching Record]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	2	B	Storage Data Flag	(1)	a
2	2	2	SWS	Matching Record Size	(4)	a
3	4	2	N	Type Code		c
4	6	2	N	Store Code		c
5	8	2	SWS	POI Information Size	(2)	c
6	10	4	D	Pointer to POI Information	(3)	c
7	14	B1		Display Character Data List for Facility Name		c
8	01	2	SWS	Matching Record Size	(4)	a

- (1) This field describes the absence or presence of the respective fields for items Nos. 2 to 8, starting with the most significant bit. (0: Absence, 1: Presence)
- (2) This field describes the size of the description section of the present general POI information.
- (3) This field specify a pointer to the top of the description section of the present general POI information.
- (4) These fields describe the size of items Nos. 1 to 8.

#### 11.A.1.1.2.2.2. Government Office Matching Table

The description of Section 11.11.1.2.2.1, "Train station - matching train station," applies.

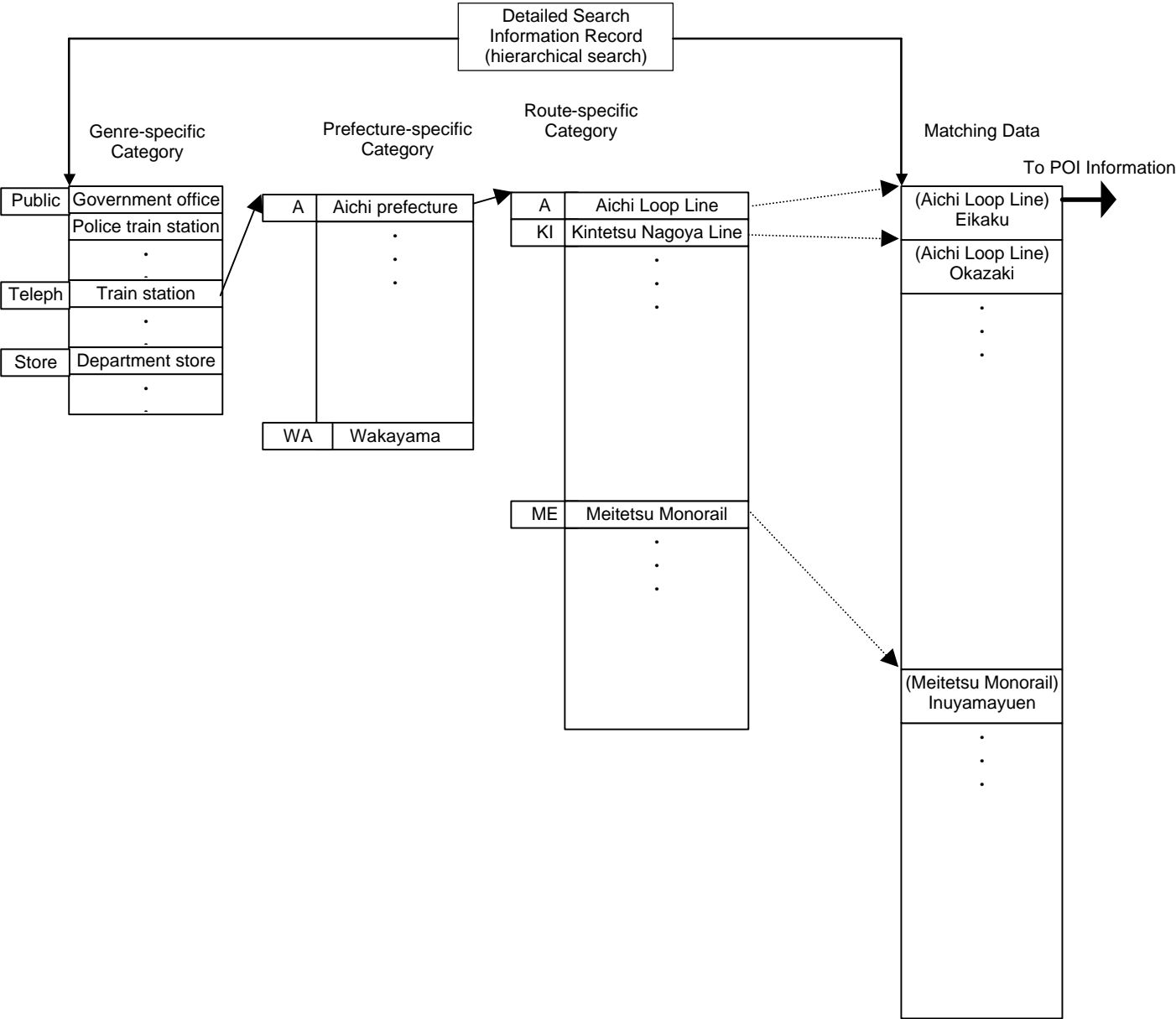
#### 11.A.1.1.2.2.3 Golf Course Matching Table

The description of Section 11.11.1.2.2.1, "Train station - matching train station," applies.



11.A.1.1.3. Search Block Diagram of Hierarchical Search

(Facility: Train station)



### 11.A.1.2. Telephone Number Search

Two methods are available to telephone number search, a method using hierarchical (toll number-local number) search and a B-Tree search method in which an entire telephone number is entered and then the matching telephone number is found.

#### 11.A.1.2.1. Telephone Number Search by Hierarchical Search Method

Among its advantages are that only the number that can be entered next can be selected, not all digits need be entered, and the last digit can be determined even if the number of digits that can be entered is not known.

##### 11.A.1.2.1.1. Telephone Number Search1 Category Definition Frame

name [Telephone Number Search1 Category Definition Frame]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	4	C	Data Declaration	'DCTF'	a
2	4	4	C	Data Type	'REAL'	a
3	8	4		(RESERVED)		a
4	12	4	N	Number of Telephone Number Search Category Definition Fields	=13	a
5	16			Telephone Number Search Category Definition Fields (#1 to #13)		a

##### 11.A.1.2.1.1.1. Telephone Number Search1 Category Definition Field

name [Telephone Number Search1 Category Definition Field]

No.	Usage	Description type	Description type declaration	Number of data items	Additional information	Explanatory note
1	'DCTF'	'REAL'	-	-	-	Definition Field Declaration (Items Nos. 2 to 4 below are category parent definitions.)
2	'NAME'	'NORM'	'ML'	1	-	Display Character Data List for Representation Item
3	'STFG'	'NORM'	'UB'	2	-	Storage Data Flag (Flag indicating the absence or presence of option(child) fields.)
4	'SELN'	'NORM'	'UL'	1	-	Number of Category Option(child) Items
5	'DCTF'	'REAL'	-	-	-	Definition Field Declaration (Items Nos. 6 to 13 are option(child) definitions.)
6	'KYT1'	'NORM'	'BD'	3	-	Toll Number -> Telephone Number Search Key
7	'KYT2'	'NORM'	'BD'	3	-	Local Number -> Telephone Number Search Key
8	'DMMY'	'NORM'	'CH'	1	-	(RESERVED)
9	'FNST'	'OFST'	'LG'	1	-	Offset to Matching Data
10	'FNCT'	'NORM'	'UL'	1	-	Matching Data Count
11	'NEXT'	'OFST'	'LG'	1	-	Offset to Next Category(parent)
12	'NTCT'	'NORM'	'UL'	1	-	Number of Option(child) Items of the Next Category
13	'NTSZ'	'NORM'	'UL'	1	-	Next Category Read Size

Note: As in items Nos. 6 and 7, define a signature 'KY\*\*' to indicate the use of the "search key."

Note: Item No. 8 (RESERVED) is used to perform data access in units of two bytes.

#### 11.A.1.2.1.1.2. Telephone Number Search1 Category Data Frame

This is just an example.

name [Telephone Number Search Category Data Frame]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		Toll Number Category Table		a
2	01	B2		A Sequence of Local Number Category Tables	(1)	a

(1) Multiple tables are arranged such as the following:

(Toll number 011) local number category table  
(Toll number 03) local number category table  
(Toll number 06) local number category table

#### 11.A.1.2.1.1.2.1 Toll Number Category Table

name [Toll Number Category Table]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		Toll Number Category Parent Record		a
2	01	B2		A Sequence of Toll Number Category Option(child) Records		a

name [Toll Number Category Parent Record]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		Display Character Data List for Representation Item	(1)	a
2	01	2	B	Storage Data Flag (Flag indicating the absence or presence of the Option(child) fields	(2)	a
3	02	4	N	Number of Category Option(child) Items		a

(1) This field describes a list of the character type. For this reason, '(' and '-' may be used.

If the list is specified with numbers only, the amount of data can be reduced by representing BCD representations by numbers. (This requires operational rules such as the use of BCD for operation.)

(2) This field describes the absence or presence of the respective fields for option(child), starting with the most significant bit. (0: Absence, 1: Presence)

In this example, specify a value of 1011111100000000(2) to omit the field for the "local number - telephone number search key."

name [Toll Number Category Option(child) Record]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	3	BCD	Toll Number -> Telephone Number Search Key	(4)	c
2	3	1		(RESERVED)		c
3	4	4	D	Offset to Matching Data	(1)	c
4	8	4	N	Matching Data Count		c
5	12	4	D	Offset to Next Category (parent)	(2)	c
6	16	4	N	Number of the Option(child) Items of the Next Category		c

7	20	4	N	Next Category Size	(3)	
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- (1) This field describes the displacement from the top of the "telephone number search matching data frame" to the top of the present, matching record.
- (2) This field describes the displacement from the top of the "telephone number search category data frame" to the top of the next, present category parent record. In this example, specify the displacement to the top of the matching "local number category parent record."

(If the next record does not exist, specify 0xffffffff.)

- (3) This field describes the size of the next category (including option). If the next category does not exist, specify 0(16).
- (4) This field describes the key, left-justified, except the first digit '0'. 0xf is assigned to an invalid digit.

If an intermediate digit is missing, the latitude and longitude of the POI information at the top of the matching data are used.

#### 11.A.1.2.1.1.2.2. Local Number Category Table

name [Local Number Category Field]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		Local Number Category Parent Record		a
2	01	B2		A Sequence of Local Number Category Option(child) Records		a

name [Category Parent Record of Local Number]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		Display Character Data List for Representation Item	(1)	a
2	01	2	B	Storage Data Flag (Flag indicating the absence or presence of the Option(child) fields)	(2)	a
3	02	4	N	Number of Category Option(child) Items		a

- (1) This field describes a list of the character type. For this reason, '(' and '-' may be used.

If the list is specified with numbers only, the amount of data can be reduced by representing BCD representations by numbers. (This requires operational rules such as the use of BCD for operation.)

- (2) This field describes the absence or presence of the respective fields for option(child), starting with the most significant bit. (0: Absence, 1: Presence)

In this example, specify a value of 0111100000000000(2) to omit the fields for the "toll number -> telephone number search key," "offset to next category (parent)," "number of next category option(child)," and "next category reading size."

(These fields are not necessary because the category is the lowermost one.)

name [Local Number Category Option(child) Record]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	3	BCD	Local Number -> Telephone Number Search Key	(2)	c
2	3	1		(RESERVED)		c
3	4	4	D	Offset to Matching Data	(1)	c
4	8	4	N	Matching Data Count		c

- (1) This field describes the displacement from the top of the "telephone number search matching data frame" to the top of the present, matching record.
- (2) This field describes the key, left-justified. 0xf is assigned to an invalid digit.

Basically, use only an existing telephone number because the search is hierarchical.

#### 11.A.1.2.1.2.Telephone Number Search1 Matching Data Definition Frame

name [Telephone Number Search1 Matching Data Definition Frame]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	4	C	Data Declaration	'DCTF'	a
2	4	4	C	Data Type	'REAL'	a
3	8	4		(RESERVED)		a
4	12	4	N	Number of Telephone Number Search Matching Data Definition Fields	=7	a
5	16	128		Telephone Number Search Matching Data Definition Field (#1)		a

#### 11.A.1.2.1.2.1. Telephone Number Search1 Matching Data Definition Field

name [Telephone Number Search1 Matching Data Definition Field]

No.	Usage	Description type	Description type declaration	Number of data items	Additional information	Explanatory note
1	'TEL1'	'NORM'	'BD'	3	-	Toll Number
2	'TEL2'	'NORM'	'BD'	3	-	Local Number
3	'TEL3'	'NORM'	'BD'	2	-	Subscriber Number
4	'RLXY'	'NORM'	'BN'	1	-	True (display) Coordinate Latitude and Longitude
5	'MPSC'	'NORM'	'LG'	1	-	Display Map Scale
6	'POIS'	'NORM'	'UW'	1	-	General POI Information Size
7	'POIO'	'PITR'	'LG'	1	-	Pointer to General POI Information

Specify the toll number and the local number used as the search key at the top of the matching data.

#### 11.A.1.2.1.2.2. Telephone Number Search1 Matching Data Frame

name [Telephone Number Search1 Matching Data Frame]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		Telephone Number1 Matching Table		a

#### 11.A.1.2.1.2.2.1. Telephone Number1 Matching Table

name [Telephone Number1 Matching Table]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		A Sequence of Telephone Number1 Matching Records		a

name [Telephone Number1 Matching Record]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	3	BCD	Toll Number	(1)	a
2	3	3	BCD	Local Number	(2)	a
3	6	2	BCD	Subscriber Number		a
4	8	8	B:N	Display Latitude and Longitude	(3)	a
5	16	4	B:N	Display Map Scale	(4)	a
6	20	2	SWS	POI Information Size	(5)	a
7	22	4	D	Pointer to POI Information	(6)	a

(1) This field describes the number, left-justified, except the first digit '0'. 0xf is assigned to an invalid digit.

(2) This field describes the number, left-justified. 0xf(16) is assigned to an invalid digit.

(3) This field describes a representative point.

(4) This field describes the radii of the major axes of the area to be displayed in the latitude and longitude directions, in relation to the displayed latitude and longitude, as follows.

Word 0

No.	Bit	Description
1	15	(RESERVED)
2	14 to 0	Latitude and Longitude (s)

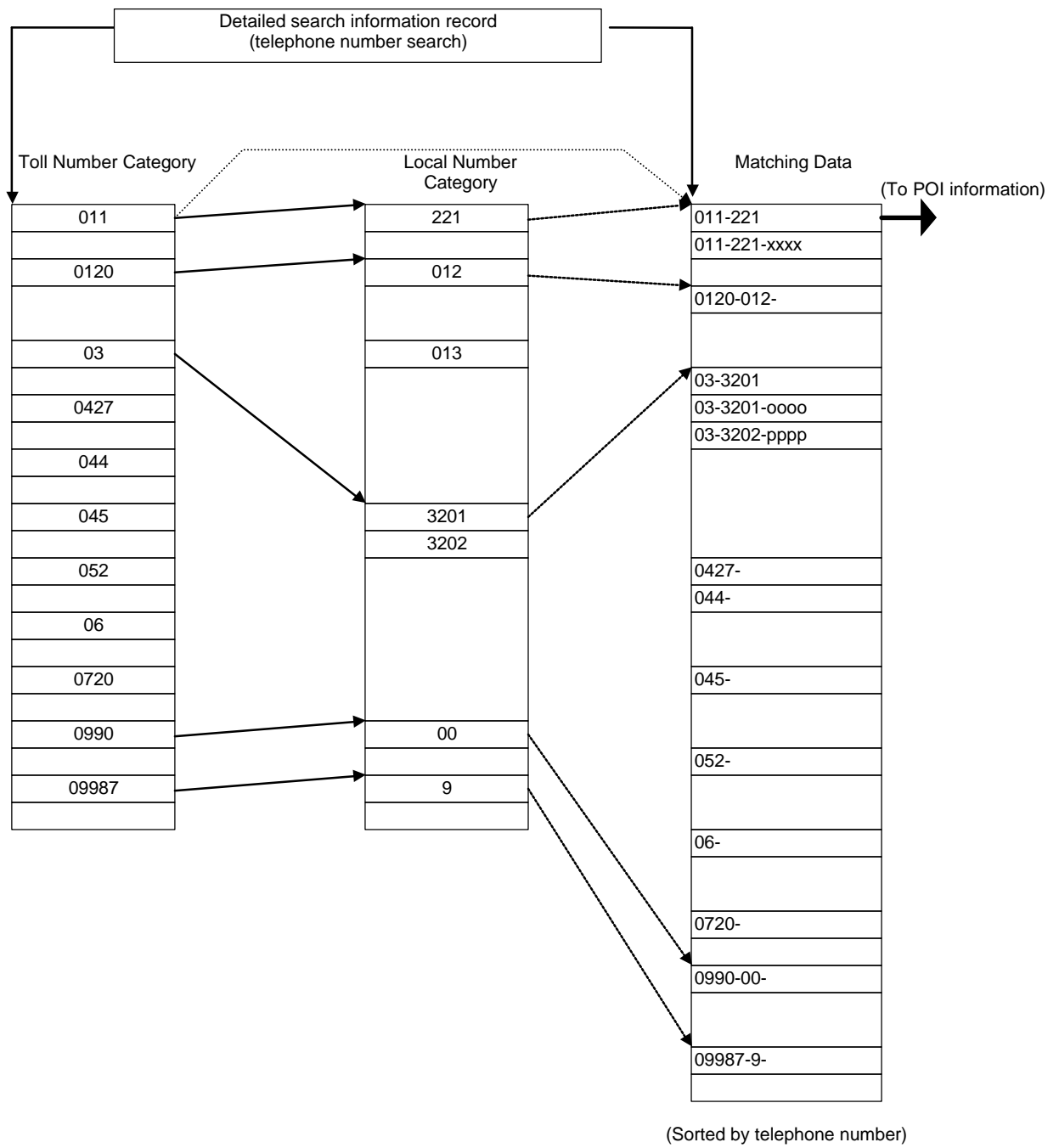
Word 1

No.	Bit	Description
1	15 to 11	Latitude and Longitude (s)
2	10 to 8	Latitude - 0.125 second units
3	7 to 0	For expansion

(5) This field describes the size of the description section of the present general POI information.

(6) This field specifies a pointer to the top of the description section of the present general POI information.

### 11.A.1.2.1.3.Telephone Number Search Block Diagram



#### 11.A.1.2.2. Telephone Number Search by B-Tree Method

This telephone number search is executed after all of the telephone number to search for is entered. It can be used if the matching data is uniquely identified for the telephone number as the search key, if the amount of data will be quite large, and if the search cost (number of accesses and reading data size) is to be made uniform.

The management system involves the B-TREE (balanced tree), which is used in general databases. Basically, the matching data frames are sorted by the search key.

The key itself need not be assigned a meaning. The search key must, however, be located at the top of the matching data. (Key position assurance). This enables B-Tree search to be executed with any code system other than that of telephone numbers.

Matching table (A Sequence of POI Information)

Key	Telephone number	Subscriber name (main heading) - subheading	Latitude and longitude
0100000000 .....	010-000-0000 .....	x .....	North latitude Y1 and east longitude X1 .....
0330000000	03-3000-0000	Store A	North latitude Y2 and east longitude X2
0330000001	03-3000-0001	B Industries	North latitude Y3 and east longitude X3
0330000002	03-3000-0002	C	North latitude Y4 and east longitude X4
.....	.....	.....	.....
061234567f	06-123-4567(f)	Trading company D	North latitude Y5 and east longitude X5
.....	.....	.....	.....
0990999999	0990-999-999	Z	North latitude Y6 and east longitude X6

Sorted by the key.

For the matching data sorted by the key, category data of the B-Tree structure is created. Option records in category data differ from hierarchical option in that the inclusion relations of the matching data are determined with the comparison relations with the preceding and succeeding options.

Because B-Tree search is executed after all of a key is entered, the action to be taken if no data exists for the matching key must be defined. (If B-Tree search is used in a predetermined way, the application may predetermine the default action (method of determining an alternate key for search), but this is not generally the case.)

If the matching key does not exist, the system will search for a key which contains 0xA('\*') in its effective digit, by means of backward search. (Representative point)

##### 11.A.1.2.2.1. Telephone Number Search2 Category Definition Frame

name [Telephone Number Search2 Category Definition Frame]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	4	C	Data Declaration	'DCTF'	a
2	4	4	C	Data Type	'REAL'	a
3	8	4		(RESERVED)		a
4	12	4	N	Number of Telephone Number Search Category Definition Fields	=8	a
5	16			Telephone Number Search Category Definition Fields (#1 to #8)		a



#### 11.A.1.2.2.1.1. Telephone Number Search2 Category Definition Field

name [Telephone Number Search2 Category Definition Field]

No.	Usage	Description type	Description type declaration	Number of data items	Additional information	Explanatory note
1	'DCTF'	'REAL'	-	-	-	Definition Field Declaration (Items Nos. 2 and 3 below are category parent definitions.)
2	'CTFN'	'NORM'	'UB'	2	-	Next-level Category and Matching Data Judgment Flag
3	'SELN'	'NORM'	'UL'	1	-	Number of Category Option(child) Items
4	'DCTF'	'REAL'	-	-	-	Definition Field Declaration (Items Nos. 5 to 8 below are option(child) definitions.)
5	'KYT1'	'NORM'	'BD'	6	-	Search Key (Telephone Number)
6	'NEXT'	'OFST'	'LG'	1	-	Offset to Next Category(parent) and Matching Data
7	'NTCT'	'NORM'	'UL'	1	-	Number of Next Category Option and Matching Data Items
8	'NTSZ'	'NORM'	'UL'	1	-	Next Category and Matching Data Read Size

In the last-level, the system searches for the matching data directly.

#### 11.A.1.2.2.1.2. Telephone Number Search2 Category Data Frame

This is just an example.

name [Telephone Number Search2 Category Data Frame]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		A Sequence of B-tree type Telephone Number Category Tables		a

#### 11.A.1.2.2.1.2.1. B-Tree Type Telephone Number Category Table

name [B-Tree Telephone Number Category Table]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		Category Parent Record		a
2	01	B2		A Sequence of Category Option(child) Records		a

name [B-Tree Category Parent Record]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	2	B	Judgement Flag indicating Next-level Category or Matching Data Judgment Flag	(1)	a
2	2	4	N	Number of Category Option(child) Items		a

- (1) This field describes whether the data indicated by the option(child) is for the category data or matching data, starting with the most significant bit. (0: Category data (parent), 1: Matching data)

For B-Tree search, no representation items need be recorded because list display is not required in the intermediate stages in the category, unlike hierarchical search.

name [B-Tree Type Category Option(child) Record]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	6	BCD	Search Key (Telephone Number)	(1)	c
2	6	4	D	Offset to Next Category(parent) and Matching Data	(2)	c
3	10	4	N	Number of Next Category Option(child) and Matching Data Items		c
4	14	4	N	Next Category Size	(3)	

- (1) This field describes the key, left-justified. In the category, 0xf (invalid digit) and 0xa (wild card) are not described. The search key is considered to retrieve the matching data including the value of the next option.
- (2) This field describes the displacement from the top of the "B-Tree - telephone number search category data frame" to the top of the next, present category parent record or the displacement from the top of the "telephone number search matching data frame" to the top of the present, matching record. The data to be written is written in item (2) of the category parent.
- (3) This field describes the size of the next category (including option) or the record size of the matching data.

For B-Tree search, any missing intermediate bits are not permitted.

#### 11.A.1.2.2.2. Telephone Number Search2 Matching Data Definition Frame

name [Telephone Number Search Matching Data Definition Frame]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	4	C	Data Declaration	'DCTF'	a
2	4	4	C	Data Type	'REAL'	a
3	8	4		(RESERVED)		a
4	12	4	N	Number of Matching Data Definition Fields	=5	a
5	16	128		Matching Data Definition Field (#1)		a

#### 11.A.1.2.2.2.1. Telephone Number Search Matching Data Definition Field

name [Telephone Number Search Matching Data Definition Field]

No.	Usage	Description type	Description type declaration	Number of data items	Additional information	Explanatory note
1	'TELN'	'NORM'	'BD'	6	-	Telephone Number
2	'RLXY'	'NORM'	'BN'	1	-	Coordinate Latitude and Longitude of True Position (Display
3	'MPSC'	'NORM'	'LG'	1	-	Display Map Scale
4	'POIS'	'NORM'	'UW'	1	-	General POI Information Size
5	'POIO'	'PITR'	'LG'	1	-	Pointer to General POI Information

Specify the telephone number 'TELN' corresponding to the 'KYT1' used as the search key at the top of the matching data.

#### 11.A.1.2.2.2. Telephone Number Search2 Matching Data Frame

name [Telephone Number Search2 Matching Data Frame]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		Telephone Number2 Matching Table		a

#### 11.A.1.2.2.2.1. Telephone Number Search(2) Matching Table

name [Telephone Number2 Matching Table]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		A Sequence of Telephone Number Search2 Matching Records		a

name [Telephone Number2 Matching Record]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	6	BCD	Telephone Number	(1)	a
2	6	8	B:N	Latitude and Longitude	(2)	a
3	14	4	N	Display Map Scale	(3)	a
4	18	2	SWS	POI Information Size	(4)	a
5	20	4	D	Pointer to POI Information	(5)	a

(1) This field describes the number, left-justified. 0xf(16) is assigned to an invalid digit.

(2) This field describes a representative point.

(3) This field describes the radii of the major axes of the area to be displayed in the latitude and longitude directions, in relation to the displayed latitude and longitude, as follows.

Word 0

No.	Bit	Description
1	15	(RESERVED)
2	14 to 0	Latitude and Longitude (s)

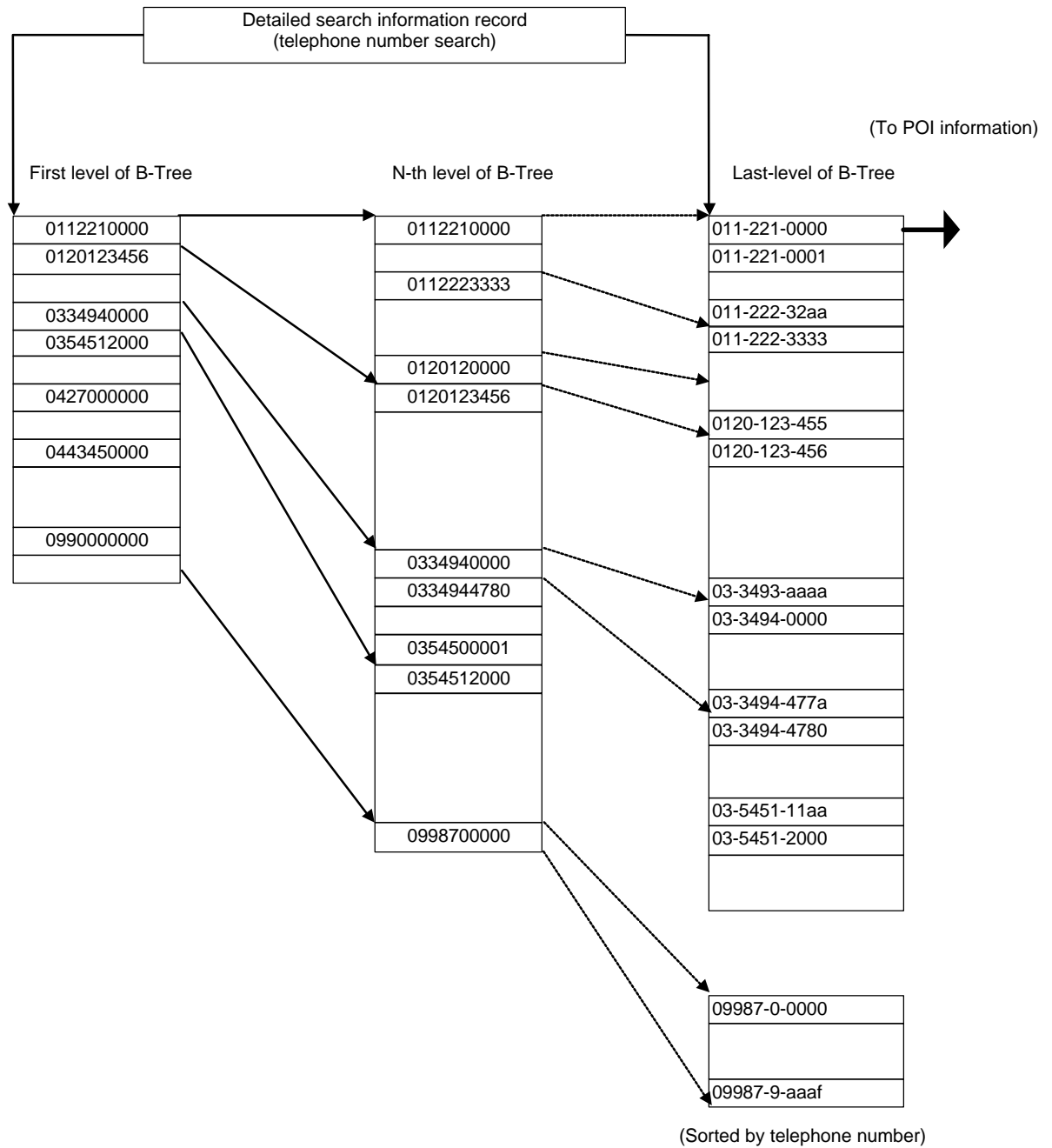
Word 1

No.	Bit	Description
1	15 to 11	Latitude and Longitude (s)
2	10 to 8	Latitude in 0.125-second units
3	7 to 0	For expansion

(4) This field describes the size of the description section of the present general POI information.

(5) This field describes a pointer to the top of the description section of the present general POI information.

### 11.A.1.2.2.3.Telephone Number Search2 Block Diagram



### 11.A.1.3. Japanese Syllabary Search

#### 11.A.1.3.1. Japanese Syllabary Search Category Definition Frame

name [Japanese Syllabary Search Category Definition Frame]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	4	C	Data Declaration	'DCTF'	a
2	4	4	C	Data Type	'REAL'	a
3	8	4		(RESERVED)		a
4	12	4	N	Number of Japanese Syllabary Search Category Definition Fields	=15	a
5	16			Japanese Syllabary Search Category Definition Fields (#1 to #15)		a

#### 11.A.1.3.1.1. Japanese Syllabary Search Category Definition Field

name [Japanese Syllabary Search Category Definition Field]

No.	Usage	Description type	Description type declaration	Number of data items	Additional information	Explanatory note
1	'DCTF'	'REAL'	-	-	-	Definition Field Declaration (Item Nos. 2 to 4 below are category parent definitions.)
2	'YOMI'	'NORM'	'ML'	1	-	Reading Data List for Representation Item
3	'NAME'	'NORM'	'ML'	1	-	Display Character Data for List Representation Item
4	'DMMY'	'NORM'	'CH'	1	-	(RESERVED)
5	'STFG'	'NORM'	'UB'	1	-	Storage Data Flag (Flag indicating the absence or presence of the option(child) fields.)
6	'SELN'	'NORM'	'UL'	1	-	Number of Category Option(child) Items
7	'DCTF'	'REAL'	-	-	-	Definition Field Declaration (Items Nos. 7 to 14 below are option(child) definitions.)
8	'KY50'	'NORM'	'UB'	1	-	Japanese Syllabary Code -> Japanese Syllabary Search Key
9	'DMMY'	'NORM'	'CH'	1	-	(RESERVED)
10	'FNSZ'	'NORM'	'UL'	1	-	Matching Data Read Size
11	'FNST'	'OFST'	'LG'	1	-	Offset to Matching Data
12	'FNCT'	'NORM'	'UL'	1	-	Matching Data Count
13	'NEXT'	'OFST'	'LG'	1	-	Offset to Next Category(parent)
14	'NTCT'	'NORM'	'UL'	1	-	Number of Next Category Option(child) Items
15	'NTSZ'	'NORM'	'UL'	1	-	Next Category Read Size

Note: Item No. 4 above, [DMMY], is inserted for access in units of two bytes.

Note: As in item No. 7 above, define a signature 'KY\*\*' to indicate the use of the "search key."

### 11.A.1.3.1.2. Japanese Syllabary Search Category Data Frame

name [Japanese Syllabary Search Category Data Frame] (1)

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		First Syllable Category Table		a
2	01	B2		A Sequence of Second Syllable Category Tables	(2)	a
				• • •		
N	0n	Bn		A Sequence of N-th Syllable Category Tables		a

(1) The contents of the Japanese syllabary search category data frame are just examples.

(2) Multiple tables are arranged such as the following:

(First syllable A) second syllable category table  
(First syllable I) second syllable category table

#### 11.A.1.3.1.2.1. First Syllable Category Table

name [First Syllable Category Table]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		First Syllable Category Parent Record		a
2	01	B2		A Sequence of First Syllable Category Option(child) Records		a

name [First Syllable Category Parent Record]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		Reading Data List for Representation Item		a
2	01	B2		Display Character Data List for Representation Item		a
3	02	1		(RESERVED)		a
4	03	1	B	Storage Data Flag (Flag indicating the absence or presence of option(child) fields)	(1)	a
5	04	4	N	Number of Category Option(child)		a

(1) This field describes the absence or presence of the respective fields for option(child), starting with the most significant bit. (0: Absence, 1: Presence)

In this example, specify a value of 11111111(2).

name [First Syllable Category Option(child) Record]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	1	N	Japanese Syllabary Code -> Japanese Syllabary Search Key	(1)	c
2	1	1		(RESERVED)		c
3	2	4	N	Matching Data Reading Size	(2)	c
4	6	4	D	Offset to Matching Data	(3)	c
5	10	4	N	Matching Data Count		c
6	14	4	D	Offset to Next Category (parent)	(4)	c
7	18	4	N	Number of the Option(child) Items of the Next Category		c
8	22	4	N	Next Category Size	(5)	a

- (1) For example, this key can be used to enter Japanese syllabary codes using a dedicated keyboard.

The Japanese syllabary codes are arranged in Japanese syllabary order. In Japan, this key is intended for two-byte hiragana (katakana) only. Basically, this key is not intended for lowercase characters, and voiced and plosive consonant sounds are not used.

Not all Japanese syllabary codes need be described.

- (2) This field describes the size of the entire present, matching record.
- (3) This field describes the displacement from the top of the "Japanese syllabary search matching data frame" to the top of the present, matching data record.
- (4) This field describes the displacement from the top of the "Japanese syllabary search category data frame" to the top of the next, present category parent record. In this example, specify the displacement to the top of the matching "second syllable category parent record).

(If the next record does not exist, specify 0xffffffff.)

- (5) This field describes the size of the next category (including option). If the next category does not exist, specify 0(16).

#### 11.A.1.3.1.2.2. Second Syllable Category Table

The description of Section 11.11.3.1.2.1, "First syllable category table," applies.

#### 11.A.1.3.1.2.3. N-th Syllable (last-level) Category Table

name [N-th Syllable Category Table]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		N-th Syllable Category Parent Record		a
2	01	B2		A Sequence of the n-th Syllable Category Option(child) Records		a

name [N-th Syllable Category Parent Record]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		Reading Data List for Representation Item		a
2	01	B2		Display Character Data List for Representation Item		a
3	02	1		(RESERVED)		a
4	03	1	B	Storage Data Flag (Flag indicating the absence or presence of option(child) fields.)	(1)	a
5	04	4	N	Number of Category Option(child) Items		a

- (1) This field describes the absence or presence of the respective fields for option(child), starting with the most significant bit. (0: Absence, 1: Presence)

In this example, specify a value of 11111000(2) to omit the fields for the "offset to next category (parent)" and the "number of next category option(child)."

(These fields are not necessary because the category is the lowermost one.)

name [N-th Syllable Category Option(child) Record]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	1	N	Japanese Syllabary Code -> Japanese Syllabary Search Key	(1)	c
2	1	1		(RESERVED)		c
3	2	4	N	Matching Data Size	(2)	c
4	6	4	D	Offset to Matching Data	(3)	c
5	10	4	N	Matching Data Count		c

- (1) For example, this key can be used to enter Japanese syllabary codes using a dedicated keyboard.

The Japanese syllabary codes are arranged in Japanese syllabary order. In Japan, this key is intended for two-byte hiragana (katakana) only. Basically, this key is not intended for lowercase characters, and voiced and plosive consonant sounds are not used.

Not all Japanese syllabary codes need be described.

- (2) This field describes the size of the entire present, matching record.
- (3) This field describes the displacement from the top of the "Japanese syllabary search matching data frame" to the top of the present, matching record.



### 11.A.1.3.2. Japanese Syllabary Search Matching Data Definition Frame

name [Japanese Syllabary Search Matching Data Definition Frame]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	4	C	Data Declaration	'DCTF'	a
2	4	4	C	Data Type	'REAL'	a
3	8	4		(RESERVED)		a
4	12	4	N	Number of Japanese Syllabary Search Matching Data Definition Fields	=6	a
5	16			Japanese Syllabary Search Matching Data Definition Fields(#1 to #6)		a

### 11.A.1.3.2.1. Japanese Syllabary Search Matching Data Definition Field

name [Japanese Syllabary Search Matching Data Definition Field]

No.	Usage	Description type	Description type declaration	Number of data items	Additional information	Explanatory note
1	'FNRS'	'NORM'	'UW'	1	-	Matching Data Record Size
2	'POIS'	'NORM'	'UW'	1	-	General POI Information Size
3	'POIO'	'PITR'	'LG'	1	-	Pointer to General POI Information
4	'YOMI'	'NORM'	'ML'	1	-	Reading Data List
5	'NAME'	'NORM'	'ML'	1	-	Display Character Data List for Names
6	'FNRS'	'NORM'	'UW'	1	-	Record Size of Matching Data

### 11.A.1.3.2.2. Japanese Syllabary Search Matching Data Frame

name [Japanese Syllabary Search Matching Data Frame]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		Japanese Syllabary Matching Table		a

### 11.A.1.3.2.3. Japanese Syllabary Matching Table

name [Japanese Syllabary Matching Table]

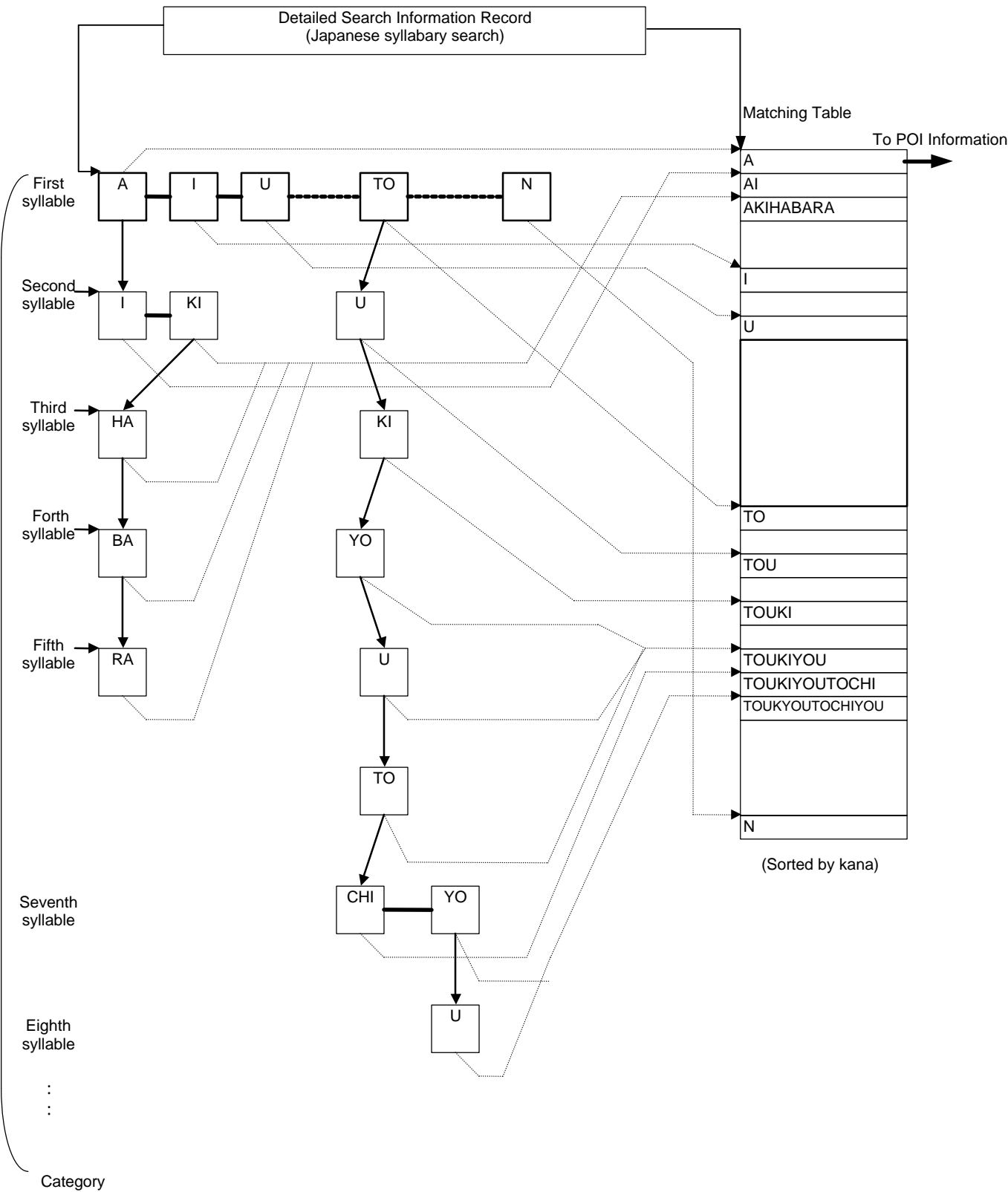
No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		A Sequence of Japanese Syllabary Matching Records		a

name [Japanese Syllabary Matching Record]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	2	SWS	Record Size of Matching Data	(1)	a
2	2	2	SWS	POI Information Size	(2)	a
3	4	4	D	Pointer to POI Information	(3)	a
4	8	B1		Reading Data List		a
5	01	B2		Display Character Data List for Names		a
6	02	2	SWS	Record Size of Matching Data	(1)	a

- (1) This field describes the size of items Nos. 1 to 6.
- (2) This field describes the size of the description section of the present general POI information.
- (3) This field describes a pointer to the top of the description section of the present general POI information.

11.A.1.3.3. Japanese Syllabary Search Block Diagram



#### 11.A.1.4. Address Search

##### 11.A.1.4.1. Address Search Category Definition Frame

name [Address Search Category Definition Frame]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	4	C	Data Declaration	'DCTF'	a
2	4	4	C	Data Type	'REAL'	a
3	8	4		(RESERVED)		a
4	12	4	N	Number of Address Search Category Definition Fields	=25	a
5	16	496		Address Search Category Definition Fields (#1 to #25)		a

##### 11.A.1.4.1.1. Address Search Category Definition Field

name [Address Search Category Definition Field]

No.	Usage	Description type	Description type declaration	Number of data items	Additional information	Explanatory note
1	'DCTF'	'REAL'	-	-	-	Definition Field Declaration (Item Nos. 2 to 12 below are category parent definitions.)
2	'YOMI'	'NORM'	'ML'	1	-	Reading Data List for Representation Item
3	'NAME'	'NORM'	'ML'	1	-	Display Character Data List for Representation Item
4	'JPSZ'	'NORM'	'UW'	1	-	Jump Table Size
5	'JPLV'	'NORM'	'SG'	1	-	Jump Table Creation Form
6	'JPCT'	'NORM'	'UW'	1	-	Number of Jump Records
7	'SFST'	'NORM'	-	-	-	Start of Field Set
8	'JPKY'	'NORM'	'CH'	2	-	Jump Key
9	'JPST'	'OFST'	'LG'	1	-	Offset to Jump Option
10	'EFST'	'NORM'	-	-	-	End of Field Set
11	'STFG'	'NORM'	'UB'	2	-	Storage Data Flag (Flag indicating the absence or presence of the option(child) field.)
12	'SELN'	'NORM'	'UL'	1	-	Number of Category Option(child) Items
13	'DCTF'	'REAL'	-	-	-	Definition Field Declaration (Items Nos. 14 to 25 below are option(child) definitions.)
14	'KY50'	'NORM'	'UB'	1	-	Japanese Syllabary Code -> Address Search Key
15	'KYA1'	'NORM'	'UB'	1	-	Prefectural Code -> Address Search Key
16	'KYA2'	'NORM'	'UW'	1	-	Administrative Area Code -> Address Search Key
17	'KYA3'	'NORM'	'UL'	1	-	Ooaza/koaza Code -> Address Search Key
18	'FNSZ'	'NORM'	'UL'	1	-	Matching Data Read Size
19	'FNST'	'OFST'	'LG'	1	-	Offset to Matching Data

No.	Usage	Description type	Description type declaration	Number of data items	Additional information	Explanatory note
20	'FNCT'	'NORM'	'UL'	1	-	Matching Data Count
21	'NTSZ'	'NORM'	'UL'	1	-	Next Category Read Size
22	'NEXT'	'OFST'	'LG'	1	-	Offset to Next Category(parent)
23	'NTCT'	'NORM'	'UL'	1	-	Number of Option(child) Items of the Next Category
24	'YOMI'	'NORM'	'ML'	1	-	Reading Data List (for Option)
25	'NAME'	'NORM'	'ML'	1	-	Display Character Data List for (for Option)

Note: Items Nos. 8 and 9 are handled as a set, using items Nos. 7 and 10 above. Items Nos. 7 and 10 are not reflected in real data. As many sets of items Nos. 8 and 9 as the number indicated by item No. 6 exist.

Note: As in items Nos. 14 to 17 above, define a signature 'KY\*\*' to indicate the use of the "search key." Specify the search key at the top of the option.

#### 11.A.1.4.1.2.Address Search Category Data Frame

name [Address Search Category Data Frame] (1)

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		Prefectural Category Table		a
2	01	B2		A Sequence of City/ward/town/village Category Tables	(2)	a
3	02	B3		A Sequence of Ooaza/koaza/banchi Category Tables	(3)	a

(1) The contents of the address search category data frame are just examples (of a layer).

(2) Multiple tables are arranged such as the following:

(Aichi prefecture) city/ward/town/village category table

(Aomori prefecture) city/ward/town/village category table

(3) Multiple tables are arranged such as the following:

(XX city, Aichi prefecture) ooaza/koaza/banchi category table

(YY city, Aichi prefecture) ooaza/koaza/banchi category table

#### 11.A.1.4.1.2.1. Prefectural Category Table

name [Prefectural Category Table]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		Prefectural Category Parent Record		a
2	01	B2		A Sequence of Prefectural Category Option(child) Records		a

name [Prefectural Category Parent Record]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		Reading Data List for Representation Item		a
2	01	B2		Display Character Data List for Representation Item		a
3	02	2	SWS	Jump Table Size	(1)	a
4	03	4	CC	Jump Table Creation Form	(2)	c
5	04	2	N	Jump - Number of Records	(3)	c
6	05	2	CC	Jump Key (#1)	(4)	c
7	06	4	D	Offset to Jump Option (#1)	(5)	c
8	07	2	CC	Jump Key (#2)	(4)	c
9	08	4	D	Offset to Jump Option (#2)	(5)	c
:	:	:	:	:		
10	09	2	CC	Jump Key (#n)	(4)	c
11	010	4	D	Offset to Jump Option (#n)	(5)	c
12	011	2	B	Storage Data Flag (Flag indicating the absence or presence of option(child) fields.)	(6)	a
13	012	4	N	Number of (Category) Option(child)		a

- (1) This field describes the size of items Nos. 4 to 11. A size of 0 indicates that the fields for items Nos. 4 to 11 do not exist.
- (2) This field describes the signature representing the jump table creation form.  
Example: G150 (Japanese syllabary code "A KA SA TA NA ...WA")
- (3) This field describes the number of records indicated by item No. 6 and subsequent items, a set of "jump key" and "offset to jump option" being assumed a single record.
- (4) As the "jump key," specify the value conforming to the code system of the "search key" of that option in the category. This makes it possible to determine the type of jump table from the "search key" of a option in each category.  
In this example, specify a Japanese syllabary code.
- (5) The "offset to jump option" represents the displacement from the top of the genre category table to the option corresponding to the "jump key."
- (6) This field describes the absence or presence of the respective fields for option(child), starting with the most significant bit. (0: Absence, 1: Presence)

In this example, specify a value of 1100111111110000(2) to omit the fields for the "administrative area code -> address search key" and the "ooaza/koaza code -> address search key."

name [Prefectural Option(child) Category Record]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	2	N	Japanese Syllabary Code -> Address Search Key		c
2	2	2	N	Prefecture Code -> Address Search Key		c
3	4	4	N	Matching Data Read Size	(3)	c
4	8	4	D	Offset to Matching Data	(1)	c
5	12	4	N	Matching Data Count		c
6	16	4	SWS	Next Category Size	(4)	c
7	20	4	D	Offset to Next Category(parent)	(2)	c
8	24	4	N	Number of Option(child) Items of the Next Category		c
9	28	B1		Reading Data List (for Option)		c
10	01	B2		Display Character Data List (for Option)		c

- (1) This field describes the displacement from the top of the "address search matching data frame" to the top of the present, matching record.
- (2) This field describes the displacement from the top of the "address search category data frame" to the top of the next, present category parent. In this example, specify the displacement to the top of the matching "city/ward/town/village category parent record."
- (If the next record does not exist, specify 0xffffffff.)
- (3) If multiple present, matching records exist, specify the total size of the matching records.
- (4) This field describes the size of the next category (including option). If the next category does not exist, specify 0(16).

#### 11.A.1.4.1.2.2. City/Ward/Town/Village Category Table

name [City/ward/town/village Category Table]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		City/ward/town/village Category Parent Record		a
2	01	B2		A Sequence of City/ward/town/village Category Option(child) Records		a

name [Category Parent Record of City/ward/town/village]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		Reading Data List for Representation Item		a
2	01	B2		Display Character Data List for Representation Item		a
3	02	2	SWS	Jump Table Size	(1)	a
4	03	4	CC	Jump Table Creation Form	(2)	c
5	04	2	N	Number of Jump Records	(3)	c
6	05	2	CC	Jump Key (#1)	(4)	c
7	06	4	D	Offset to Jump Option (#1)	(5)	c
8	07	2	CC	Jump Key (#2)	(4)	c
9	08	4	D	Offset to Jump Option (#2)	(5)	c
:	:	:	:	:		

10	09	2	CC	Jump Key (#n)	(4)	c
11	010	4	D	Offset to Jump Option (#n)	(5)	c
12	011	2	B	Storage Data Flag (Flag indicating the absence or presence of option(child) fields.)	(6)	a
13	012	4	N	Number of Category Option(child) Items		a

(1) This field describes the size of items Nos. 4 to 11. A size of 0 indicates that the fields for items Nos. 4 to 11 do not exist.

(2) This field describes the signature representing the jump table creation form.

Example: G150 (Japanese syllabary code "A KA SA TA NA ...WA")

(3) This field describes the number of records indicated by item No. 6 and subsequent items, a set of "jump key" and "offset to jump option" being assumed a single record.

(4) As the "jump key," specify the value conforming to the code system of the "search key" of that option in the category. This makes it possible to determine the type of jump table from the "search key" of a option in each category.

In this example, specify a Japanese syllabary code.

(5) The "offset to jump option" represents the displacement from the top of the genre category table to the option corresponding to the "jump key."

(6) This field describes the absence or presence of the respective fields for option(child), starting with the most significant bit. (0: Absence, 1: Presence)

In this example, specify a value of 1010111111110000(2) to omit the fields for the "prefecture code -> address search key" and the "ooaza/koaza code -> address search key."

name [City/ward/town/village Category Option(child) Record]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	2	N	Japanese Syllabary Code -> Address Search Key		c
2	2	2	N	Administrative area Code -> Address Search Key		c
3	4	4	N	Matching Data Read Size	(3)	c
4	8	4	D	Offset to Matching Data	(1)	c
5	12	4	N	Matching Data Count		c
6	16	4	SWS	Next Category Read Size	(4)	c
7	20	4	D	Offset to Next Category(parent)	(2)	c
8	24	4	N	Number of the Option(child) Items of the Next Category		c
9	28	B1		Reading Data List (for Option)		c
10	01	B2		Display Character Data List (for Option)		c

(1) This field describes the displacement from the top of the "address search matching data frame" to the top of the present, matching record.

(2) This field describes the displacement from the top of the "address search category data frame" to the top of the next, present category parent. In this example, specify the displacement to the top of the matching "ooaza/koaza/banchi category parent record."

(If the next record does not exist, specify 0xffffffff.)

(3) If multiple present, matching records exist, specify the total size of the matching records.

(4) This field describes the size of the next category (including option). If the next category does not exist, specify 0(16).

#### 11.A.1.4.1.2.3. Ooaza/koaza/banchi Category Table

name [Ooaza/koaza/banchi Category Table]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	237		Ooaza/koaza/banchi Category Parent Record		a
2	237	B1		A Sequence of Ooaza/koaza/banchi Category Option(child) Records		a

name [Ooaza/koaza/banchi Category Parent Record]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	2	SWS	Character Information Size of Representation Item	(1)	a
2	2	2	SWS	Size of the Reading of Representation Item		a
3	4	B1	CC	Reading for Representation Item		a
4	01	2	SWS	Character Size for Representation Item		a
5	02	B2	CC	Character for Representation Item		a
6	03	2	SWS	Jump Table Size	(2)	a
7	04	4	CC	Jump Table Creation Form	(3)	c
8	05	2	N	Number of Jump Records	(4)	c
9	06	2	CC	Jump Key (#1)	(5)	c
10	07	4	D	Offset to jump Option (#1)	(6)	c
11	08	2	CC	Jump Key (#2)	(5)	c
12	09	4	D	Offset to jump Option (#2)	(6)	c
:	:	:	:	:		
13	010	2	CC	Jump Key (#n)	(5)	c
14	011	4	D	Offset to Jump Option (#n)	(6)	c
15	012	2	B	Storage Data Flag (Flag indicating the absence or presence of option(child) fields.)	(7)	a
16	013	4	N	Number of Category Option(child) Items		a

(1) This field describes the size of items Nos. 1 to 5.

(2) This field describes the size of items Nos. 7 to 14. A size of 0 indicates that the fields for items Nos. 7 to 14 do not exist.

(3) This field describes the signature representing the jump table creation form.

Example: G150 (Japanese syllabary code "A KA SA TA NA ...WA")

(4) This field describes the number of records indicated by item No. 9 and subsequent items, a set of "jump key" and "offset to jump option" being assumed a single record.



- (5) As the "jump key," specify the value conforming to the code system of the "search key" of that option in the category. This makes it possible to determine the type of jump table from the "search key" of a option in each category.

In this example, specify a Japanese syllabary code.

- (6) The "offset to jump option" represents the displacement from the top of the genre category table to the option corresponding to the "jump key."
- (7) This field describes the absence or presence of the respective fields for option(child), starting with the most significant bit. (0: Absence, 1: Presence)

In this example, specify a value of 1110001001111110(2) to omit the fields for the "next category reading size," "offset to next category(parent)," "number of next category option(child)," "prefecture code -> address search key," and the "administrative area code -> address search key."

(These fields are not necessary because the category is the lowermost one.)

name [Ooaza/koaza/banchi Category Option(child) Record]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	4	N	Matching Data Read Size	(2)	c
2	4	4	D	Offset to Matching Data	(1)	c
3	8	4	N	Matching Data Count	(2)	c
4	12	2	N	Japanese Syllabary Code -> Address Search Key		c
5	14	2	N	Ooaza/koaza Code -> Address Search Key		c
6	16	B1		Reading Data List (for Option)		c
7	01	B2		Display Character Data List (for Option)		c

- (1) This field describes the displacement from the top of the "address search matching data frame" to the top of the present, matching record.
- (2) If multiple present, matching records exist, these fields describe the total size of the records.

#### 11.A.1.4.2. Address Search Matching Data Definition Frame

name [Address Search Matching Data Definition Frame]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	4	C	Data Declaration	'DCTF'	a
2	4	4	C	Data Type	'REAL'	a
3	8	4		(RESERVED)		a
4	12	4	N	Number of Address Search Matching Data Definition Fields	=2	a
5	16	32		Address Search Matching Data Definition Field (#2)		a

##### 11.A.1.4.2.1. Address Search Matching Data Definition Field

name [Address Search Matching Data Definition Field]

No.	Usage	Description type	Description type declaration	Number of data items	Additional information	Explanatory note
1	'POIS'	'NORM'	'UW'	1	-	General POI Information Size
2	'POIO'	'PITR'	'LG'	1	-	Pointer to General POI Information

#### 11.A.1.4.2.2.Address Search Matching Data Frame

name [Address Search Matching Data Frame] (1)

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		Aichi prefecture Matching Table		a
2	01	B2		Aomori prefecture Matching Table		a
3	02	B3		Ishikawa prefecture Matching Table		a
				• • •		

(1) The contents of the address search matching data frame are just examples.

##### 11.A.1.4.2.2.1. Aichi prefecture Matching Table

name [Aichi prefecture Matching Table]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		A Sequence of Aichi prefecture Matching Records		a

name [Aichi prefecture Matching Record]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	2	SWS	POI Information Size	(1)	a
2	2	4	D	Pointer to POI Information	(2)	a

(1) This field describes the size of the description section of the present general POI information.

(2) This field describes a pointer to the top of the description section of the present general POI information.

##### 11.A.1.1.4.2.2.2. Aomori Prefecture Matching Table

The description of Section 11.11.4.2.2.1, "Aichi prefecture - matching table," applies.

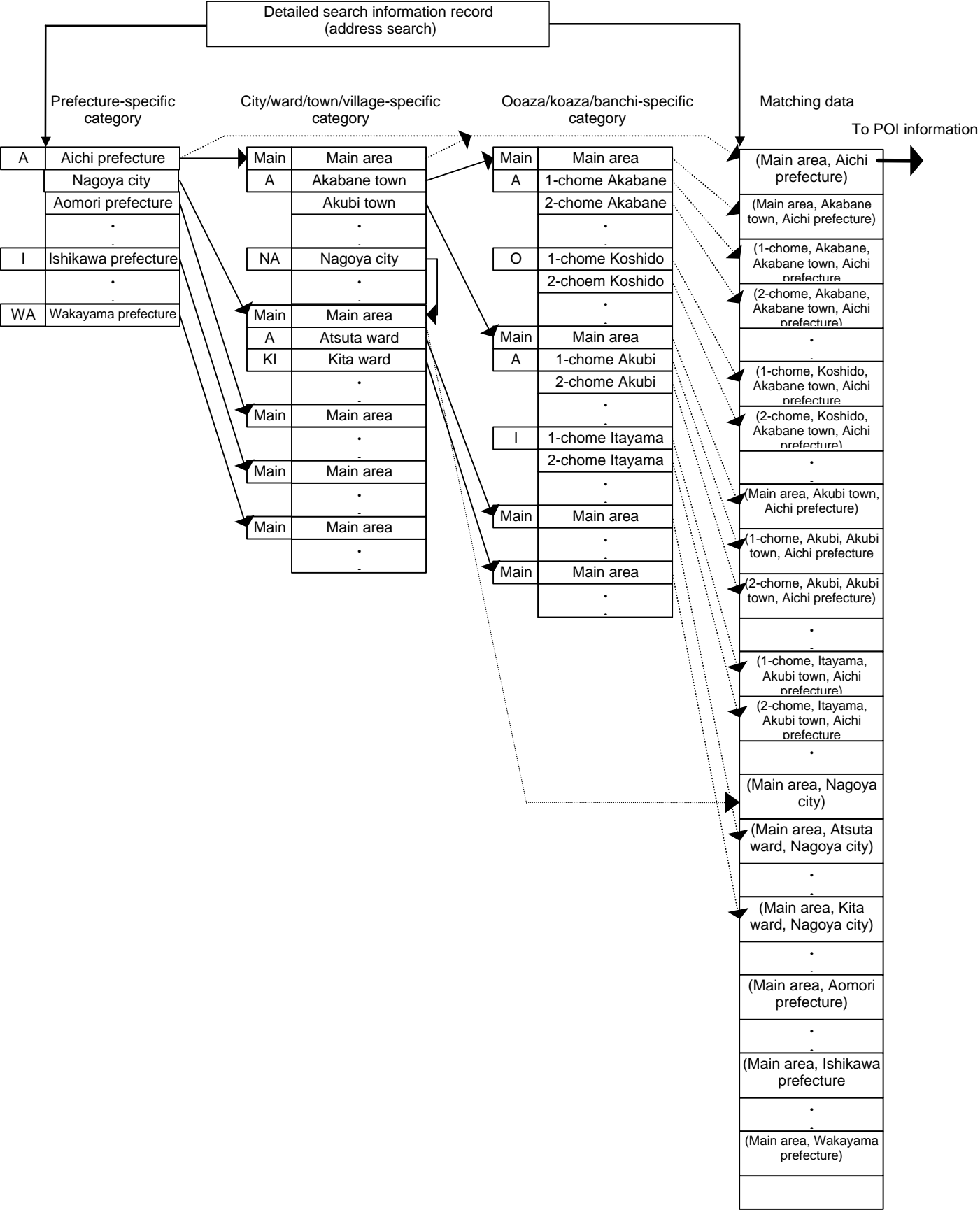
##### 11.A.1.4.2.2.3. Ishikawa Prefecture Matching Table

The description of Section 11.11.4.2.2.1, "Aichi prefecture - matching table," applies.

##### 11.A.1.4.2.2.4. Wakayama Prefecture Matching Table

The description of Section 11.11.4.2.2.1, "Aichi prefecture - matching table" applies.

11.A.1.4.3. Address Search Block Diagram



### 11.A.1.5. Surrounding Search

In surrounding search, it is expected that the selection and narrowing down of types using categories are performed in the same way as in hierarchical search and, therefore, the configuration of the category record is the same as that for hierarchical search. In surrounding search, however, POI position coordinates are an important element besides types, and it is desirable that the matching record reflect position coordinates in some way or other. The configuration must be such that the matching record can be identified using position coordinates after the narrowing down of types using categories, rather than directly associating the matching data from a certain layer of category data (in many cases, the last layer). For the convenience of data access, it is desirable that the matching data be directly associated with the main map frame.

For this reason, two types of additional records A and B in the main map frame are used. A and B are used appropriately according to function; general surrounding search (search for finding a near object) is allocated to additional data A, whereas a kind of automatic guidance to be performed if the vehicle approaches facilities is allocated to additional data B.

If surrounding search data is to be created together with map data, the matching data items must be grouped according to the parcels at the respective levels containing their coordinates, grouped according to function within the parcel groups, and further sorted according to type and priority (to be described later) within these function groups. Two methods are available to additional records A and B in the main map frame:

- (a) Link additional records A and B to the top of the matching record located outside the main map frame for each parcel.
- (b) Directly write the matching data for the present parcel and function in additional records A and B.

(See Section 7.5.) For (a), the entire matching data is positioned contiguously, starting with the address of the matching data indicated in detailed search information. For (b), the matching data is divided according to parcel and function before being positioned in each main map frame.

Surrounding search data can also be created as one type of index data independent of map data. In this case, the matching data is positioned contiguously in the same way as in method (a), but the way in which the matching records are arranged is not necessarily related to the parcel configuration of map data.

#### 11.A.1.5.1. Surrounding Search Category Definition Frame

name [Hierarchical Search Category Definition Frame]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	4	C	Data Declaration	'DCTF'	a
2	4	4	C	Data Type	'REAL'	a
3	8	4		(RESERVED)		a
4	12	4	N	Number of Surrounding Search Category Definition Fields	=13	a
5	16			Surrounding Search Category Definition Fields (#1 to #13)		a

#### 11.A.1.5.1.1.Hierarchical Search Category Definition Field

name [Hierarchical Search Category Definition Field]

No.	Usage	Description type	Description type declaration	Number of data items	Additional information	Explanatory note
1	'DCTF'	'REAL'	-	-	-	Definition Field Declaration (Items Nos. 2 to 6 below are category parent definitions.)
2	'YOMI'	'NORM'	'ML'	1	-	Reading Data List for Representation Item
3	'NAME'	'NORM'	'ML'	1	-	Display character Data List for Representation Item
4	'STFG'	'NORM'	'UB'	2	-	Storage Data Flag (Flag indicating the absence or presence of option(child) fields.)
5	'SELN'	'NORM'	'UL'	1	-	Number of Category Option(child) Items
6	'DCTF'	'REAL'	-	-	-	Definition Field Declaration (Items Nos. 7 to 13 below are option(child) definitions.)
7	'NTSZ'	'NORM'	'UL'	1	-	Next Category Size
8	'NEXT'	'OFST'	'LG'	1	-	Offset to Next Category(parent)
9	'NTCT'	'NORM'	'UL'	1	-	Number of Option(child) Items of the Next Category
10	'CTGS'	'NORM'	'CT'	1	-	Data Table for Type and Store Code
11	'YOMI'	'NORM'	'ML'	1	-	Reading Data List (for Option)
12	'NAME'	'NORM'	'ML'	1	-	Display Character Data List (for Option)

#### 11.A.1.5.2. Surrounding Search Category Data Frame

An typical example of surrounding search is described below. (This is just an example.)

name [Surrounding Search Category Data Frame]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		#1 A Sequence of Car Dealer Category Tables	(1)	c
2	01	B2		#2 A Sequence of Gas Station Category Tables	(2)	c
3	02	B3		#3 A Sequence of Car Supplies Store Category Tables	(3)	c
4	03	B4		#4 A Sequence of Dining Facilities Category Tables	(4)	c
5	04	B5		#5 A Sequence of Accommodations Category Tables	(5)	c
				.		
				.		
				.		

Category table for surrounding search using type codes (1) to (5). Because the table is of a hierarchical structure, it allows selection of more detailed type codes.

### 11.A.1.5.2.1.Surrounding Search Category Table

name [Surrounding Search Category Table]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		Category Parent Record of Surrounding Search		a
2	01	B2		A Sequence of Surrounding Search Category Option Records		a

name [Surrounding Search Category Parent Record]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		Reading Data List for Representation Item		a
2	01	B2		Display Character Data List for Representation Item		a
3	02	2	B	Storage Data Flag (Flag indicating the absence or presence of option(child) fields.)	(1)	a
4	03	4	N	Number of Category Option(child) Items		a

- (1) This field describes the absence or presence of the respective fields for option(child), starting with the most significant bit. (0: Absence, 1: Presence)

Because this record is of a structure for hierarchical search using type codes, specify a value of 1111110000000000(2). If the size of the next category and the offset are described in the last-level, the storage data flag itself need not be defined.

name [Surrounding Search Category Option(child) Record]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	4	SWS	Next Category Read Size	(1)	c
2	4	4	D	Offset to Next Category (parent)	(2)	c
3	8	4	N	Number of Category Option(child) Items		c
4		B1	CT	Data Table of Store Type and Code	(3)	c
5		B2		Reading Data List (for Option)	(4)	c
6		B3		Display Character Data List (for Option)	(4)	c

- (1) This field describes the size of the next category (including option). If the next category does not exist, specify 0(16). If the next category does not exist, only selection of data is performed.
- (2) This field describes the displacement from the top of the "surrounding search category data frame" to the top of the next, present category parent record.
- (3) This field describes the type and store codes used for surrounding search, together with the number of codes.
- (4) Items Nos. 5 and 6 are of variable length. They may be set to fixed length for operational reasons.

### 11.A.1.5.3. Surrounding Search Matching Data Definition Frame

name [Surrounding Search Matching Data Definition Frame]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	4	C	Data Declaration	'DCTF'	a
2	4	4	C	Data Type	'REAL'	a
3	8	4		(RESERVED)		a
4	12	4	N	Number of Surrounding Search Matching Data Definition Fields	=8	a
5	16			Surrounding Search Matching Data Definition Fields (#1 to #8)		a

#### 11.A.1.5.3.1. Matching Data Definition Field of Surrounding Search

A typical example of surrounding search is described below. (This is just an example.)

name [Matching Data Definition Field of Surrounding Search]

No.	Usage	Description type	Description type declaration	Number of data items	Additional information	Explanatory note
1	'STFG'	'NORM'	'UB'	2	-	Storage Data Flag
2	'FNRS'	'NORM'	'UW'	1	-	Matching Data Record Size
3	'PRIO'	'NORM'	'UB'	2	-	Priority
4	'CTGS'	'NORM'	'UL'	1	-	Store Type and Code
5	'GDIA'	'NORM'	'UW'	1	-	Radius for Guidance
6	'GDIR'	'NORM'	'UB'	1	-	Approach Direction
7	'GRFG'	'NORM'	'UB'	1	-	Subordination Flag
8	'RLXY'	'NORM'	'BN'	1	-	Coordinate Latitude and Longitude of the True Position (for Display)
9	'POIS'	'NORM'	'UW'	1	-	General POI Information Size
10	'POIO'	'PITR'	'LG'	1	-	Pointer to General POI Information
11	'NAME'	'NORM'	'ML'	1	-	Display Character Data List for Facility Name
12	'FNRS'	'NORM'	'UW'	1	-	Matching Data Record Size

#### 11.A.1.5.4 Surrounding Search Matching Data Frame

A typical example of surrounding search is described below. (This is just an example.)

This matching data frame is divided into several volumes to be managed by additional data frame A (B). Some of the volumes exist in the main map data frame to which the additional data frame belongs, while other exist independently.

name [Surrounding Search Matching Data Frame]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		Sequence of Matching Records		a

name [Matching Record]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	2	B	Storage Data Flag	(1)	a
2	2	2	SWS	Matching Record Size	(5)	a
3	4	2	N	Priority	(6)	c
4	6	4	N	Store Type and Code		c
5	10	2	N	Guidance radius	(7)	c
6	12	1	N	Approach Direction	(8)	c
7	13	1	N	Subordination Flag	(9)	c
8	14	8		Coordinate Latitude and Longitude of the True Position (Display)	(2)	c
9	22	2	SWS	POI Information Size	(3)	c
10	24	4	D	Pointer to POI Information	(4)	c
11	28	B1		Display Character Data List for Facility Name		c
12	01	2	SWS	Matching Record Size	(5)	a

- (1) This field describes the absence or presence of the respective fields for items Nos. 2 to 12, starting with the most significant bit. (0: Absence, 1: Presence)
- (2) This field describes the position with absolute latitude and longitude, without using normalized coordinates depending on the parcel. This makes it possible to use the matching data in a main map data frame at a lower (or higher) level in a map at a different level.
- (3) This field describes the size of the description section of the present general POI information.
- (4) This field specifies a pointer to the top of the description section of the present general POI information.
- (5) These fields describe the size of items Nos. 1 to 12.
- (6) This field describes a value of 1 or greater. 1 represents highest priority. 0(16) = Displayed at all times, 0xFFFF = Hidden at all times
- (7) This field describes the distance at which the system is to start responding when the vehicle approaches the present POI information, as the radius from the position of the POI information. The radius must be in meters.
- (8) This field describes the direction of approach by the vehicle to the area specified as described in (7) that causes the system to respond. The direction must be specified using the corresponding one of the 64 divisions of a circle, which are assigned values of 0 to 63 clockwise, starting with the north (top) one. To nullify the approach direction, do not describe this field itself using the storage data flag. Alternatively, write 0xff.
- (9) Used to group certain matching data if it is subordinate to other data. In the present group, position the main data at the top of the group and set this flag to 0. Position the subordinate data contiguously to the main data within the group and set this flag to 1.

Facility names can also be displayed by using a table of correspondence with type and store codes. (Optional)



### 11.A.1.6. POI Information Frame Template

#### 11.A.1.6.1. General POI Information

##### 11.A.1.6.1.1. Definition Frame for General POI Information

name [Definition Frame for General POI Information]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	4	C	Data Declaration	'DCTF'	a
2	4	4	C	Data Type	'REAL'	a
3	8	4		(RESERVED)		a
4	12	4	N	Number of General POI Information Definition Fields	=28	a
5	16			General POI Information Definition Fields (#1 to #28)		a

##### 11.A.1.6.1.1.1. General POI Information Definition Field

name [General POI Information Definition Field]

No.	Usage	Description type	Description type declaration	Number of data items	Additional information	Explanatory note
1	'STFG'	'NORM'	'BF' or 'UB'	27 5	-	Storage Data Flag
2	'LVXY'	'NORM'	'UB'	1		Coordinate Accuracy Type
3	'RLXY'	'NORM'	'BN'	1	-	Coordinate Latitude and Longitude of Real Position (Display)
4	'MPSC'	'NORM'	'BN'	1		Display Map Scale
5	'CTGS'	'NORM'	'UW'	1	-	Main Type and Store Code
6	'CTGS'	'NORM'	'CT'	1		Additional Type and store Code data table
7	'GDXY'	'NORM'	'OT'	1	'GDXY'	Guidance Point Latitude and Longitude Offset Table
8	'YOMI'	'NORM'	'ML'	1	-	Data List for Point Name Reading in kana
9	'NAME'	'NORM'	'ML'	1	-	Data List for Point Name
10	'ADNM'	'NORM'	'ML'	1	-	Data List for Address Name
11	'BDNM'	'NORM'	'ML'	1	-	Data List for Building Name
12	'LID1'	'NORM'	'UL'	1	-	Link ID Number 1
13	'LID2'	'NORM'	'UL'	1	-	Link ID Number 2
14	'LDR1'	'NORM'	'UB'	1	-	Link Direction 1
15	'LDR2'	'NORM'	'UB'	1	-	Link Direction 2
16	'TELN'	'NORM'	'BD'	6	-	Telephone Number
17	'ZIPN'	'NORM'	'BD'	4	-	Zip Code
18	'DMMY'	'NORM'	'CH'	1	-	(RESERVED)
19	'ADD1'	'NORM'	'UB'	1	-	Prefectural Code
20	'ADD2'	'NORM'	'UW'	1	-	Administrative Area (city/ward/town/village) Code
21	'ADD3'	'NORM'	'UL'	1	-	Ooaza/koaza Code
22	'ADD4'	'NORM'	'UB'	1	-	Chome

No.	Usage	Description type	Description type declaration	Number of data items	Additional information	Explanatory note
23	'ADD5'	'NORM'	'UB'	1	-	Go
24	'ADD6'	'NORM'	'UW'	1	-	Banchi
25	'ADD8'	'NORM'	'UW'	1	-	Room Number
26	'ADD7'	'NORM'	'UB'	1	-	Building Floor Number
27	'PKFG'	'NORM'	'UB'	1	-	Parking Lot Flag
28	'SRVC'	'NORM'	'SS'	1	-	Service Information Type & Size & Offset Table

The types of service information (additional information) are give below, together with how to specify them.

1	'HTML' HTML Data Size Pointer to HTML Data
2	'TEXT' Text Data Size Pointer to Text Data
3	'IMGS' Image Data Size Pointer to Image Data
4	'SOND' Voice Data Size Pointer to Voice Data

### 11.A.1.6.1.2.General POI Information Data Frame

name [General POI Information Data Frame]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	B1		A Sequence of General POI Information Description Frames		a

### 11.A.1.6.1.2.1. General POI Information Description Frame

name [General POI Information Description Frame]

No.	Offset	Data length	Data type	Data item name	Remarks	Classification
1	0	5(27Bits)	B	Storage Data Flag	(1)	a
2	5	1		Coordinate Accuracy Type	(8)	c
3	6	8		Coordinate Latitude and Longitude of Real Position (Display)	(3)	c
4	14	8		Display Map Scale	(7)	c
5	22	2	N	Store Main Type and Code		c
6	24	B1		Data Table for Store Additional Type and Code		c
7	01	B2		Guidance Point Latitude and Longitude Offset Table	(4)	c
8	02	B3		Data List: Point in kana		c
9	03	B4		Data List for Point Name		c
10	04	B5		Data List for Address Name		c
11	05	B6		Data List for Building Name		c
12	06	4	N	Link ID Number 1		c
13	07	4	N	Link ID Number 2		c
14	08	1	N	Link Direction 1	(5)	c
15	09	1	N	Link Direction 2	(5)	c
16	010	6	BCD	Telephone Number	(6)	c
17	011	4	BCD	Zip Code	(6)	c
18	012	1		(RESERVED)		c
19	013	1	N	Prefecture Code	(2) (9)	c
20	014	2	N	Administrative Area (city/ward/town/village) Code	(2) (9)	c
21	015	4	N	Ooaza/Koaza(administrative unit) Code	(2) (10)	c
22	016	1	N	Chome	(2)	c
23	017	1	N	Go	(2)	c
24	016	2	N	Banchi (Hose Number)	(2)	c
25	017	2	N	Room Number	(2)	c
26	018	1	N	Building Floor Number	(2)	c
27	019	1	N	Parking Lot Flag		c
28	020	B8		Service Information Type & Size & Offset Table		c

- (1) This field describes the absence or presence of the respective fields for items Nos. 2 to 28, starting with the most significant bit. (0: Absence, 1: Presence)
- (2) This field describes an address using items Nos. 19 to 26. To do this, execute "address search" using items Nos. 19, 20, and 21 and extract the desired character string.

For an exceptional address that cannot be extracted by searching, specify character string data using items Nos. 10 and 11.

Examples of exceptional addresses are identical addresses, multiple house shapes, and nicknames.

- (3) This field describes the target facility point (position at which the facility is located). Only a single point can be specified in a single POI information description section.
- (4) This field describes the multiple latitude and longitude tables representing arrival points (such as the front gate of an amusement park), using offsets. Basically, real data must be in latitude and longitude representation. (Alternatively, offset representation)
- (5) This field describes 0 (no direction), 1 (forward direction), or 2 (backward direction) as the link direction.
- (6) This field describes a telephone number/zip code with a 4-bit BCD code.

0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	Ah	Bh	Ch	Dh	Eh	Fh
0	1	2	3	4	5	6	7	8	9	*		(	)	-	End

Example)

Display number	Storage code
Phone: 0566-26-0000	0566e26e0000
Phone: 052(320)	052c320dffff
Zip code: 440-1234	440e1234

- (7) This field describes the radii of the major axes of the area to be displayed in the latitude and longitude directions, in relation to the displayed latitude and longitude, as follows.

Word 0

No.	Bit	Description
1	15	(RESERVED)
2	14 to 0	Latitude and Longitude (s)

Word 1

No.	Bit	Description
1	15 to 11	Latitude and Longitude (s)
2	10 to 8	Latitude in 0.125-second units
3	7 to 0	For expansion

(8) Coordinate precision types are given below.

Coordinate type	Coordinate precision
0	Pinpoint (included in place name index)
1	Pinpoint (not included in place name index)
2	Banchi (banchi precision)
3	Koaza (koaza precision)
4	Ooaza (ooaza precision)
5	Representative coordinate (coordinate used for local number search with a telephone number)
6	A corresponding house shape exists. - link with (13 to 18 + 19)

(9) In Japan, use JIS codes as the "prefecture code" and city/ward/town/village code."

(10) For the "ooaza/koaza code," a table must be created independently and stored in a medium.

In Japan, the 11-digit codes by the National Land Geography Association are not available because of copyright.

### 11.A.1.7. Supplementary Information

#### 11.A.1.7.1. Storage Data Flag

- In the category definition frame, declare the category fields in all layers as a batch.
- In each category table, define a category parent record.

To define it, define a category parent and option(child), using the "definition field declaration as a delimiter in accordance with the "Rules regarding the definition of option" in Section 11.11.1.1.1 in Chapter 11..

The fields for the "definition field declaration" is not reflected in the data frame description section.

- To identify the fields used in each layer, define a **storage data flag**.

In category data, define a single storage data flag for the parent record, instead of defining a storage data flag for each option.

- In the definition of matching data and POI information, define a storage data flag for each record.

In a storage data flag, specify the absence or presence of fields using its bits. (1: Presence, 0: Absence)

The subsequent fields are associated with the bits, starting with the most significant bit, regardless of the bit configuration.

#### 11.A.1.7.2. Search Key

- Basically, specify a search key at the top of each item.

#### 11.A.1.7.3. Jump Table

For hierarchical search, option items are basically arranged in Japanese syllabary code order. In a genre selection list, option may be arranged according to genre. In a banchi list for address search, option may be arranged according to banchi.

For this reason, the following jump table types are conceivable:

- Japanese syllabary jump table
- Genre jump table
- Banchi jump table

Thus, define a jump table in a category (parent), as follows:

Jump table reference level

Jump table {

Number of jump records

Sequence of jump records

}

Jump record {

Jump key

Offset to jump option

}

- As the "jump key," specify the value conforming to the code system of the "search key" of that option in the category. This makes it possible to determine the type of jump table from the "search key" of a option in each category.
- The "offset to jump option" is an offset to the option corresponding to the "jump key."
- Define the creation form level as data to prevent records from being redundant.