

### 11.A.2.13. Telephone Number Search

#### 11.A.2.13.1. Telephone Number Search Frame

Categories corresponding to the digit count of the office number to be searched for are created for telephone number search, using a search frame configuration similar to that of alphabetical order search.

The categories of telephone number search need not be created for each zone. The identification of a country code is defined in a file name or any other field other than this frame (because the definition of the search zone may not agree with the definition of the country code).

##### 11.A.2.13.1.1. Management Frame of Search Frame

name [Management Frame of Search Frame]

No.	offset	Data length	Data type	Item name	Remarks	Classification
1	0	16		Management Frame Header of Search Frame		a
2	16	X		Detailed Search Information Record - #1		a

##### 11.A.2.13.1.1.1. Management Frame Header of Search Frame

name [Management Frame Header of Search Frame]

No.	offset	Data length	Data type	Item name	Remarks	Classification
1	0	4	C	Data Declaration	'DFSR'	a
2	4	4	N	Category and Matching Data Count - G (Number of Detailed Search Information Records)	=1	a
3	8	4	SWS	Size of Detailed Search Information Record	1)	a
4	12	4	D	Offset to the Detailed Search Information Record	2)	a

- 1) This field describes the size of the detailed search information record. If there are two or more records, the records must have the same size (fixed length).
- 2) The displacement from the top of the search frame management frame to the first record of the sequence of detailed search information records is described, as it allows future expansion and manufacturer-specific data description.

##### 11.A.2.13.1.2. Detailed Search Information Record

No.	offset	Data length	Data type	Item name	Remarks	Classification
1	0	4	C	Data Declaration	'SRTN'	a
2	4	4	SWS	Expansion Field Size	1)	a
3	8	4	D	Offset to Expansion Field	1)	a
4	12	4	SWS	Category Definition Frame Size	2)	a
5	16	4	D	Category Definition Frame Address	3)	a
6	20	4	SWS	Category Data Frame Size	2)	a
7	24	4	D	Category Data Frame Address	3)	a
8	28	4	C	Default Keyboard Designation	'KBN2'	a
9	32	4	SWS	Category Parent Record Size	4)	a
10	36	4	SWS	Category Option Record Size	5)	a

No.	offset	Data length	Data type	Item name	Remarks	Classification
11	40	4	SWS	First-level Category Size	6)	a
12	44	4	N	Number of Option Items of First-level Category	6)	a
13	48	4	D	Offset to First-level Category Table	6)	a
14	52	4	C	Keyboard Designation for First-level Category	'KBN2'	a
15	56	4	SWS	Matching Data Definition Frame Size	2)	a
16	60	4	D	Matching Data Definition Frame Address	3)	a
17	64	4	SWS	Matching Data Frame Size	2)	a
18	68	4	D	Matching Data Frame Address	3)	a
19	72	4	SWS	Size of the Record of Matching Data Frame	7)	a
20	76	4	N	Total Number of the Records of Matching Data Frame	8)	a
21	80	4	N	Default POI Information Serial Number	9)	a
22	84	4	SWS	Next-level Data Frame Size	10)	a
23	88	4	D	Next-level Data Frame Address	10)	a
24	92	B1		Character Information Data List for Representation Item	11)	a
25	O1	B2		A Sequence of Additional Frame Address(es) (#1 to #n)	3)	c
26	O2	B3		Expansion Field		c
27	O3	B4		Padding Field		c

Note: Positions of items 25 and 26 are optional in this detailed search information record because their areas can be determined by items 5, 7, 16, and 18. However, the detailed search information record size specified in the management frame header of the higher search frame must be satisfied by items 25 to 27.

1) Expansion Field Size and Offset

This field describes a displacement from the top of the detailed search information record to the top of the expansion field as the offset to the expansion field. Since this example does not have an expansion field, specify invalid values as the size and offset.

2) These fields describe the total size of the target data frame.

3) These fields describe the address of the target data frame in the representation format of 7) in Section 11.A.2.1.2.

4) This field describes the size of the category parent record.

5) This field describes the size of a single category option record.

6) Size, Number of Option Items, and Offset, of First-level Category

These fields describe the size, number of option items, and displacement from the top of the category data frame, of the category table to be read first (which contains all the options). For the second- and subsequent-level category tables, the record size, number of option items, and offset should be specified in the parent record of the actual data.

7) Size of the Record of Matching Data Frame

This field describes the record Size of the matching data.

8) Total Number of Records of Matching Data Frame

This field describes the total number of records of the matching data frame.

9) Default POI Information Serial Number

This field describes the corresponding POI information number (POI information).

10) Next-level Data Frame Size and Address

Since this example does not have a next-level search frame, specify an invalid value.

11) Character Information Data List for Representation Item

This field describes a search name, which is determined by the function specifications of the system.

ex) English; 'TELEPHONE NUMBER'

### 11.A.2.13.1.3. Category Definition Frame

No.	Usage	Description type	Description type declaration	Number of data items	Additional information	Comment	Remarks	Classification
1	'DCTF'	'REAL'	-	-	(7)	Definition Field Declaration		a
2	'SELN'	'NORM'	'UB'	1	-	Number of Option Items		a
3	'DCSF'	'REAL'	-	-	-	Option Definition Field Declaration		a
4	'KYTL'	'NORM'	'UH'	2	-	Telephone Number Search Key	1)	a
5	'NXKD'	'NORM'	'UH'	1	-	Next-level Data Frame Type	2)	a
6	'NXFN'	'NORM'	'UH'	1	-	Next-level Data Frame Serial Number	2)	a
7	'NXCT'	'NORM'	'LW'	1	-	Number of Next-level Data Frame Records	4)	a
8	'NXST'	'OFST'	'LG'	1	-	Offset to Next-level Data Frame	3)	a

- 1) Zero (0) in the first digit is not excluded, and every two digits of the following part of the code are left-justified (the search key is handled as a string like a string of Japanese syllabary). In an invalid digit, 0xf (16) is specified.

An international dial code (country code) is not specified in this frame.

- 2) These fields describe the type of the next-level data frame.

Next level - category: NXKD = 1 (category), NXFN = 0 (invalid value)

Next level - applicable: NXKD = 2 (applicable), NXFN = 0 (invalid value) ---- When two or more objects correspond to a single search office number

Next level - POI: NXKD = 3 (POI), NXFN = n (POI information number) ---- A POI information object is indicated from the last level of the category.

- 3) This field describes the offset from the top of the next-level data frame.

Specify the displacement from the top of the target data frame to the top of the target record (table).

- 4) This field describes the applicable record count of the next-level data frame.

Next level - category: If category, the number of option items of the next level

Next level - applicable: Number of applicable data items

Next level - POI information: 1 (fixed)

#### 11.A.2.13.1.4. Category Data Frame

name [Telephone Number Search Category Data Frame]

No.	offset	Data length	Data type	Item name	Remarks	Classification
1	0	B1		Telephone Number Search Category Table		a

#### 11.A.2.13.1.4.1. Category Table

name [Telephone Number Search Category Table]

No.	offset	Data length	Data type	Item name	Remarks	Classification
1	0	B1		Telephone Number Search Parent Category Record		a
2	O1	B2		A Sequence of Telephone Number Search Option Items(child)		a

name [Telephone Number Search Parent Category Record]

No.	offset	Data length	Data type	Item name	Remarks	Classification
1	0	1	N	Number of Option(child) Items		a
2	1	1	BR	Padding Field		c

name [Telephone Number Search Category Option(child) Record]

No.	offset	Data length	Data type	Item name	Remarks	Classification
1	0	1	N:N	Telephone Number Search Key		a
2	1	1/2	N	Next-level Data Frame Type		a
3	1.5	1/2	N	Next-level Data Frame Serial Number		a
4	2	2	N	Number of Next-level Data Frame Records		a
5	4	4	N	Offset to Next-level Data Frame		a
6	8	1	BR	Padding Field		c

#### 11.A.2.13.1.5. Matching Data Definition Frame

No.	Usage	Description type	Description type declaration	Number of data items	Additional information	Comment	Remarks	Classification
1	'DCTF'	'REAL'	-	-	(4)	Definition Field Declaration		a
2	'BFRL'	'FDRL'	'UB'	1	-	Relation to the Top of the Previous Record Forward Relation from the Top of this Record	1)	c
3	'NFRL'	'FDRL'	'UB'	1	-	Relation to the Top of the following Record Backward Relation from the Top of this Record	1)	c
4	'CTGY'	'NORM'	'UW'	1	-	Type Code	2)	a
5	'POIO'	'OFST'	'LG'	1	-	Offset to General POI Information	3)	a

- 1) These fields describe the displacement from the top of the data record to the previous or following record.

If the record is not preceded or followed by a record, specify an invalid value, 0.

If the length of the corresponding data record is variable, this item must be specified. So, the classification is 'c.'

- 2) The category code can be used for advanced search or displaying the list.

Variable-length representation is possible if it is specified in the definition field.

- 3) The item represents the displacement from the top of the target POI information data frame to the top of the target record.

#### 11.A.2.13.1.6. Matching Data Frame

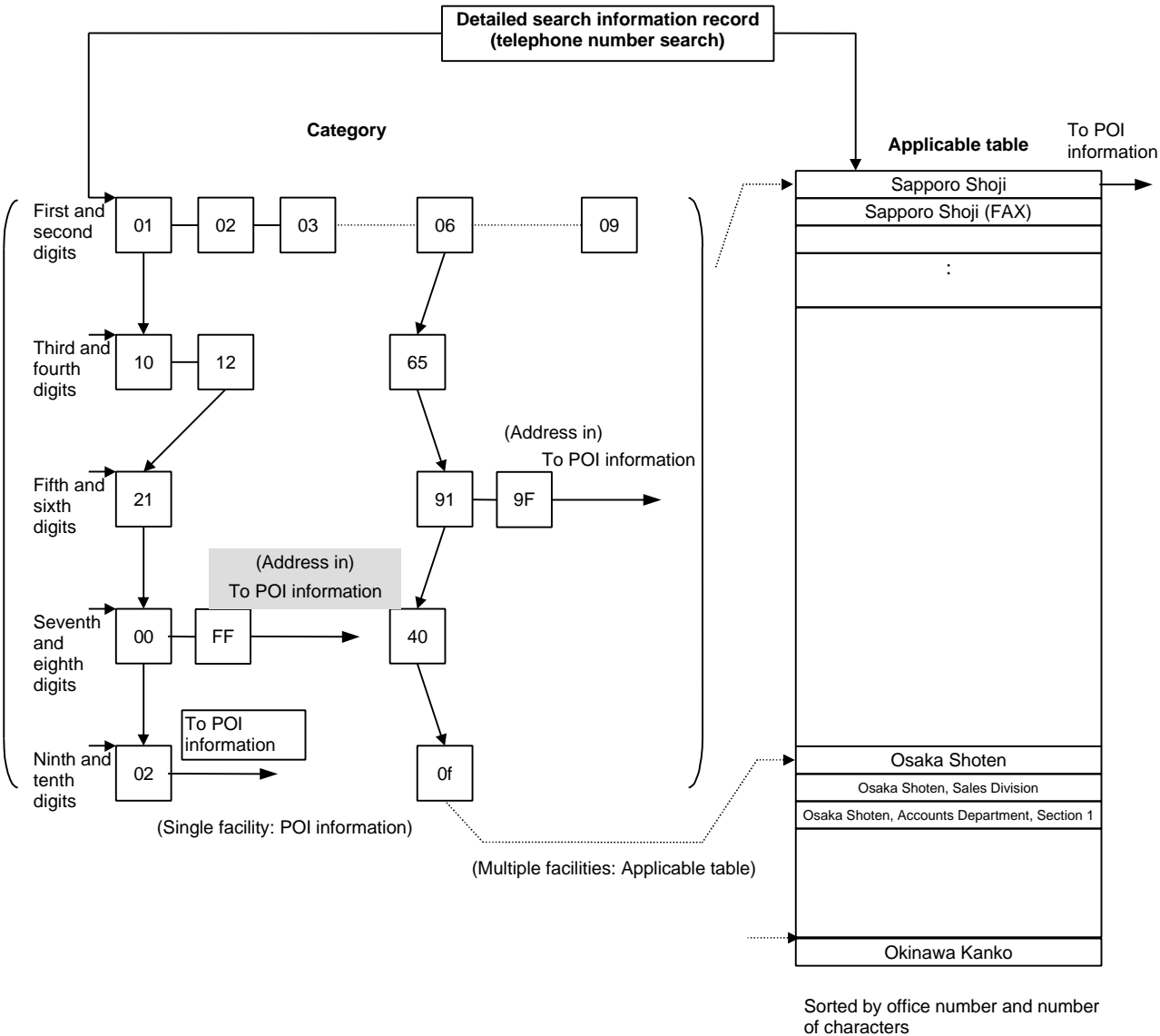
name [Telephone Number Search Matching Data Frame]

No.	offset	Data length	Data type	Item name	Remarks	Classification
1	0	B1		A Sequence of Telephone Number Search Matching Data Records		a

name [Matching Data Record of Telephone Number Search]

No.	offset	Data length	Data type	Item name	Remarks	Classification
1	0	1	D	Relation to the Top of the Previous Record Forward Relation from the Top of This Record		c
2	1	1	D	Relation to the Top of the Following Record Backward Relation from the Top of This Record		c
3	2	2	N	Type Code		a
4	4	4	D	Offset to General POI Information		a

11.A.2.13.1.7. Configuration of Telephone Number Search (alphabetical order type)



Note: This example assumes that the category has five levels and the office number of the telephone number has ten digits. The number of digits may be different.