

# **intra-mart WebPlatform/AppFramework Ver.7.2**

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**IM-Common Master Import/Export Specifications**

**First Edition: 2012/05/07**



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# 1 Introduction

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## 1.1 Purpose

This document aims to explain the following subjects concerning the import/export functions of IM-Common Master:

- Scope of import/export;
- Data formats for import/export and difference in their processing methods;
- How to execute import/export.

## 1.2 Structure

This document is structured as follows:

- In [2 Data areas], scope of data to be handled by the import/export functions of IM-Common master is explained.
- In [3 Import] and [4 Export], how to handle each of two types of data format (CSV format and XML format) is explained.
- In [5 Data file format], two types of data format are explained.
- In [6 Executing import/export.], how to perform import/export in practice is explained.

## 1.3 Prerequisites

This document assumes various restrictions and operating environments of IM-Common Master that belongs to the intra-mart WebPlatform/AppFramework as prerequisites. As it does not describe IM-Common Master in detail, please refer to the separate document “IM-Common Master Specifications” for the in-depth specifications of IM-Common Master.

## 2 Data areas

Import/export functions of IM-Common Master cover the data areas as shown in Table 2-1 below. Explanations about entities included in these data areas will be given in the next section and thereafter.

Table 2-1: Data areas to be handled by import/export functions

Data area name	Target entity
company-group	company-group and its structure, company attachment
company-department	company and its department, post, inclusion structure (tree-structure), user attachment
public-group	public-group and its role, inclusion structure (tree-structure), user attachment
private-group	private-group and user attachment
user	user profile information
corporation	corporation and its inclusion structure (tree-structure), customer attachment
customer	customer information
item	item information
item category	item category and its inclusion structure (tree-structure), item attachment
currency rate	currency rate information

### 2.1 Company-group

The data area “company-group” consists of three (3) entities as shown below.

Table 2-2: Company-group entities

Entity name	Target table
company-group	imm_company_grp
company-group-inclusion	imm_company_grp_inc_ath
company-group-attach	imm_company_grp_ath

- When importing company-attach, that company needs to have been already registered.
- Company-group-set will be created when the company-group which indicates the company-group-set is imported. Company-group-set alone cannot be imported/exported. In addition, company-group-set which has already been created cannot be updated.

### 2.2 Company-department

The data area “company-department” consists of seven (7) entities as shown below.

Table 2-3: Company-department entities

Entity name	Target table
department	imm_department
department-inclusion	imm_department_inc_ath
post	imm_company_post
department-attach/department-attach-post	imm_department_ath / imm_department_post_ath
department-category	imm_department_ctg
department-category-item	imm_department_ctg_itm
department-category-attach	imm_department_ctg_ath

- When importing department-attach, target user of the attachment needs to have been already registered.
- When importing/exporting department-attach-post, the relevant department-attach will always be the target of such import/export. In case of no department-attach-post, the relevant department-attach alone will be



imported/exported.

- Company/department-set will be created as may be necessary when importing the department. Company/department-set alone cannot be imported/exported. In addition, existing company/department-set cannot be updated.
- When importing department-attach, main attachment can be configured. However, in case of overlapping terms of main attachment, it will be overwritten.
  - ◆ If any main attachment term not being the import target already exists, the import will be executed upon cancelling the main attachment of the overlapping term.
  - ◆ If any overlapping main attachments exist within a single import data file, which main attachment should be valid cannot be guaranteed.

## 2.3 Public-group

The data area “public-group” consists of seven (7) entities as shown below.

Table 2-4: Public-group entities

Entity name	Target table
public-group	imm_public_grp
public-group-inclusion	imm_public_grp_inc_ath
role	imm_public_grp_role
public-group-attach/public-group-attach-role	imm_public_grp_ath / imm_public_grp_role_ath
public-group-category	imm_public_grp_ctg
public-group-category-item	imm_public_grp_ctg_itm
public-group-category-attach	imm_public_grp_ctg_ath

- When importing public-group-attach, target user of the attachment needs to have been already registered.
- When importing/exporting public-group-attach-role, the relevant public-group-attach will be the target of such import/export. In case of no public-group-attach-role, the relevant public-group-attach alone will be the target of import/export.
- Public-group-set will be created as may be necessary when importing the public-group. Public-group-set alone cannot be imported/exported. In addition, existing public-group-set cannot be updated.

## 2.4 Private-group

The data area “private-group” consists of two (2) entities as shown below.

Table 2-5: Private-group entities

Entity name	Target table
private-group	imm_private_grp
private-group-attach	imm_private_grp_ath

- When importing private-group-attach, target user of the attachment needs to have been already registered.

## 2.5 User

The data area “user” consists of four (4) entities as shown below.

Table 2-6: User entities

Entity name	Target table
user	imm_user
user-category	imm_user_ctg
user-category-item	imm_user_ctg_itm

user-category-attach	imm_uset_ctg_ath
----------------------	------------------

## 2.6 Corporation

The data area “corporation” consists of three (3) entities as shown below.

Table 2-7: Corporation entities

Entity name	Target table
corporation	imm_corporation
corporation-inclusion	imm_corporation_inc_ath
corporation-attach	imm_corporation_ath

- When importing corporation-attach, the relevant customer needs to have already been present.
- Corporation-set will be created as may be necessary when importing the corporation. Corporation-set alone cannot be imported/exported. In addition, existing corporation-set cannot be updated.
- Corporation-category/corporation-category-item/corporation-category-attach are not to be the targets of import/export.

## 2.7 Customer

The data area “customer” consists of one (1) entity as shown below.

Table 2-8: Customer entity

Entity name	Target table
customer	imm_customer

- Customer-category/customer-category-item/customer-category-attach are not to be the targets of import/export.

## 2.8 Item

The data area “item” consists of one (1) entity as shown below.

Table 2-9: Item entity

Entity name	Target table
item	imm_item

- Item-category/item-category-item/item-category-attach are not to be the targets of import/export.

## 2.9 Item-category

The data area “item-category” consists of three (3) entities as shown below.

Table 2-10: Item-category entities

Entity name	Target table
item category	imm_item_category
item-category-inclusion	imm_item_category_inc_ath
item-category-attach	imm_item_category_ath

- In order to import item-category-attach, the relevant item needs to have already been present.
- Item-category-set will be created as may be necessary when importing the item-category. Item-category-set alone cannot be imported/exported. In addition, existing item-category-set cannot be updated.

## 2.10 Currency-rate

The data area “currency-rate” consists of one (1) entity as shown below.

- Currency-rate handles two records of TTB and TTS as one set. TTB (exchange rate from local currency-code to foreign currency-code) and TTS (exchange rate from foreign currency-code to local currency-code) are handled as one set.

Table 2-11: Currency-rate entity

Entity name	Target table
currency-rate	imm currency rate

## 3 Import

### 3.1 Outline

There are two types of import function of IM-Common Master: one is "snapshot import" with which a single term is imported, and the other is "full-term import" with which multiple terms are imported between the system start date and the system end date.

For data files to be used for importing, two types of format, namely XML and CSV can be used. XML files can handle multiple terms, whereas CSV files do not have term information. Other than term information, there is no difference in information which can be handled with these formats.

When importing concurrently multiple terms, or data with different terms for each entity, data files should be created in XML.

In principle, import processing consists of only data registration/update. It should be noted that existing entity and entity-attach information cannot be deleted. However, exceptionally only in case of inclusion structure, existing information on the import target term will be deleted. As no information can be added to inclusion structure, all the structure information surely needs to be imported.

Table 3-1: Function comparison

	Snapshot	Full-term
valid locale	no restriction	no restriction
valid term	<ul style="list-style-type: none"> <li>• only one term</li> <li>• same start date/end date for all the terms</li> </ul>	<ul style="list-style-type: none"> <li>• multiple terms can be created</li> <li>• any term can be configured individually</li> </ul>
how to specify the term	specified in the configuration file	specified within the import data file
data file	CSV, XML	XML

- Notes when executing snapshot import with XML format selected for the data file:
  - ◆ Even if start date/end date are configured in the XML data file, they will be ignored.
  - ◆ If more than one terminable informations have been described, just one of them will be imported. In this case, the terminable information to be selected cannot be specified, and there is no guarantee that a particular one should be surely selected.

#### 3.1.1 Importing entities having internationalization information

It is possible to describe internationalization information of multiple locales in one import file, and the internationalization information so described will all be registered. Locale data with no description will remain the same, and will not be deleted. In such a case, only non-internationalization information will be updated.

- Notes when importing in CSV format:

If the data file is in CSV format, data on one locale is described per one line. When importing multiple locales, there will be multiple lines for one data, whereas all the non-internationalization data need to be described with identical contents. Neither omitting some data nor describing different data is allowed.

List 3-2 shows an example of CSV data on a public-group. The first four portions written in bold (public-group-set code, public-group code, sort-key, delete-flag) need surely be identical.

```
public-group,public-group,17,false,ja, サンプルパブリック, サンプル, サンプルパブリック, サンプル
public-group,public-group,17,false,en, sample-public, sample, sample public, sample
```

List 3-2: An example of a public-group having data in Japanese and in English

- ◆ The first line is information in Japanese, and the second line is information in English. Sort-key and delete-flag must be identical respectively.
- ◆ If different data is configured, just one of them will be registered. In this case, there is no guarantee that particular data is constantly selected.

### 3.1.2 Importing entities having terminable information

In full-term import, the term exactly as described in the data file will be created.

If the term information in the data file is not continuous or is overlapping, an error will occur resulting in aborting the import.

In snapshot import, basically just one term will be the import target.

However, if import target term does not fill the period between the system start date and the system end date, multiple terms may be created.

- If a new entity has been imported.
- If a locale has been added for an entity having internationalization information. (次節で解説)

In these cases, data other than the one term being the import target will be automatically complemented, so arbitrary data cannot be specified.

### 3.1.3 Updating entities having internationalization/terminable information

If an entity having terminable information also has internationalization information, all the terms for the internationalization information will also be changed. Internationalization information which has not been described in the import data file will also be updated.

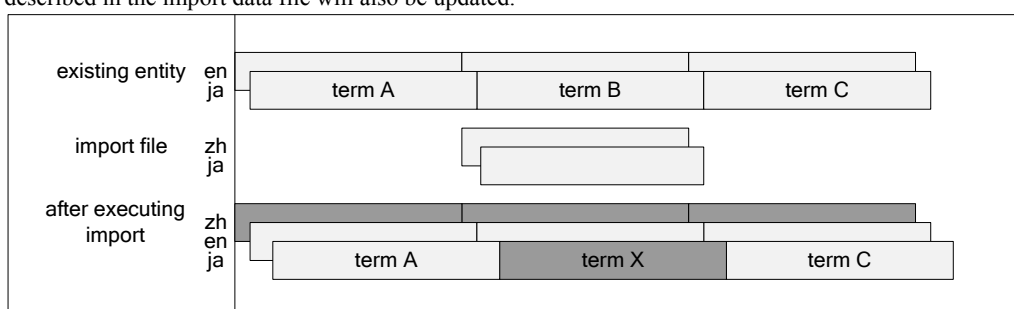


Figure3-3: Example of importing term B

The portion in dark gray color after executing import is the term to be updated.

- For Japanese (ja), term B will be updated by the imported data.
- English (en) is not the target, so its internationalization information will not be updated. Start date, end date and delete-flag will be updated.
- For Chinese (zh), term B being the import target term will be created, and the lacking term A and term C will be created concurrently.

## 3.2 Snapshot import

Data extracted from the terminable information existing on a particular date is called “snapshot”. In snapshot

import, import can be executed based on this snapshot data.

- Just one term from the import start date up to the end date will be created for all the entities having terminable information.
  - ◆ Entities having no terminable information will be registered/updated regardless of the term.
- Start date and end date of terminable information to be imported are configured in the configuration file.
- In case of overlapping on the term created by import and the existing term in the master information, existing term will be shortened or deleted.
- There are no restrictions on the sequence of data in the import file.
  - ◆ Within an identical file, data required to be imported first will be imported.

### 3.2.1 Term to be imported/updated by snapshot import

The term to be created by snapshot import is just one term specified in the configuration file. If an existing term lies on the start date/end date which have been configured, the term will be divided by the start date/end date.

#### 3.2.1.1 Adding a new term

- “Term B” being the import target will be created.
- Because this term alone cannot meet the restriction of “having full-term data”, complementary terms will be added to before and after the term.
  - ◆ “Term A” beginning from the system start date up to the import start date will be created.
  - ◆ “Term C” beginning from the import end date up to the system end date will be created.

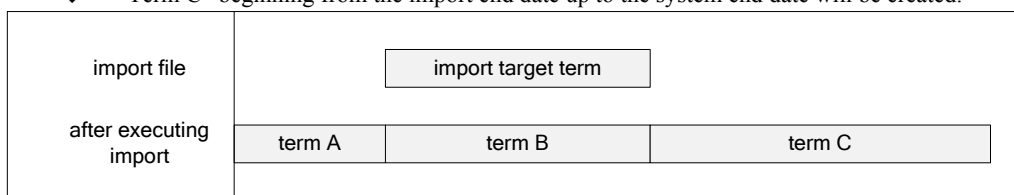


Figure 3-4: Creating a new term

#### 3.2.1.2 Updating existing data

- If a term is imported to an entity having its whole term divided into four terms.
  - ◆ End date of “term A” will be changed to import start date.
  - ◆ Because “term B” is included in the import target term, it will be deleted.
  - ◆ Start date of “term C” will be changed to import end date.
  - ◆ Because “term D” is not included in the import target term, it will remain unchanged.
  - ◆ “Term X” will be created, consisting of the imported data.

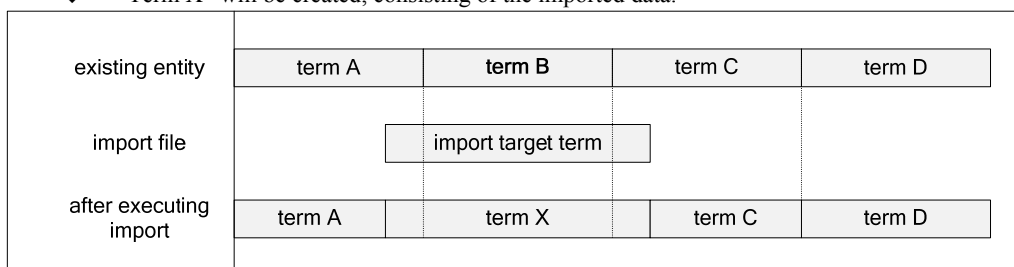


Figure 3-5: Overwriting the term (1)

- If a term is imported to an entity having just one term.
  - ◆ End date of “term A” will be changed to import start date.
  - ◆ “Term B” will be created, consisting of the imported data.

- ◆ “Term C” beginning from the import end date up to the system end date, will be created. The data is same as “term A”, except start date/end date.

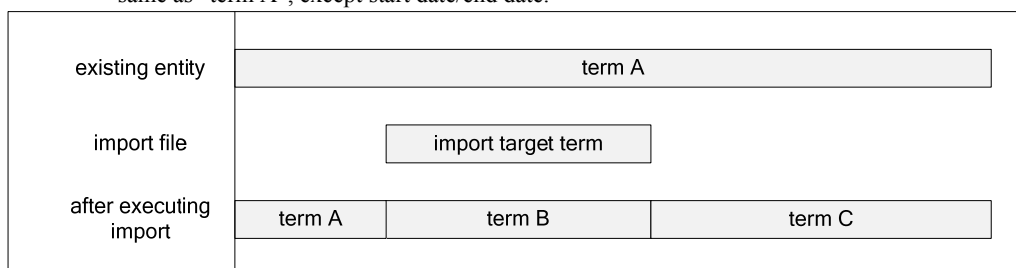


Figure 3-6: Overwriting the term (2)

### 3.3 Full term import

For an entity, more than one term information beginning from the system start date up to the system end date can be imported collectively. All the terminable information can be imported with arbitrary terminable information configured.

- If each of the entities with terminable information has different term information:
  - ◆ A consecutive term beginning from the system start date up to the system end date needs to be configured. There are no multiple terms on one particular date, and the term information cannot be missing.
  - ◆ Entities having no terminable information will be registered/updated regardless of the term.
- If the term is described in the import data file:
  - ◆ Even if start date and end date of existing data are not to be changed, term description cannot be omitted.
- If all the terms are newly created within the term of the import file:
  - ◆ If an existing term remains, it will be defined with the same content. However, its term-code will be newly assigned.
  - ◆ Partial definition of the term will cause an error.
- There are no restrictions on the sequence of data in the import file.

#### 3.3.1 Content to be notified to a listener by API during import

In import processing, IM-Common Master API is used for updating data. This section describes the sequence of notifying the updated content to a listener during executing import. The portion expressed as “???” in the method name differs depending on the entity of each Manager.

- In full-term import, change of terms will be executed several times in order to assign new term-codes.

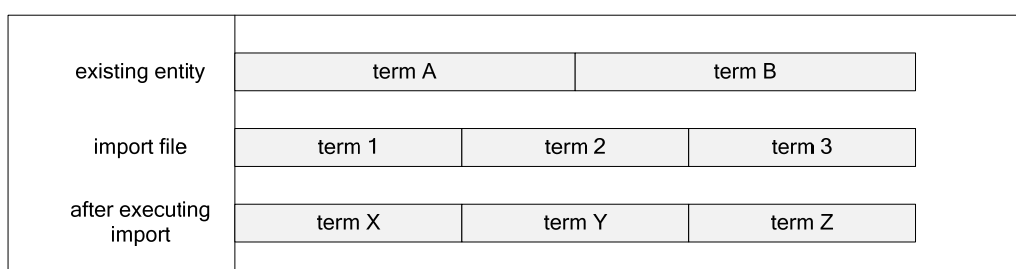


Figure 3-7: Import target

In order to create a term with new term-code at the forefront, previous forefront term is moved backward. (Figure 3-8)

Term of “term A” beginning from the system start date will be changed as follows:

```
01: update???Term (term A) // term A: from today's date up to the system end date
02: remove???Term (term B)
03: create???Term (term X) // term X: from the system start date up to today's date
```

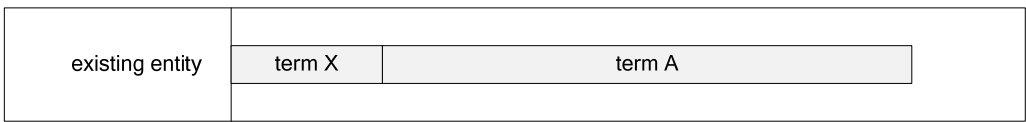


Figure 3-8: Creating a new term

- The newly created term will be changed to the full-term, which will be filled with term X. (Figure 3-9)

```
04: update???Term (term X) // term X: from the system start date up to the system end date
05: remove???Term (term A)
```

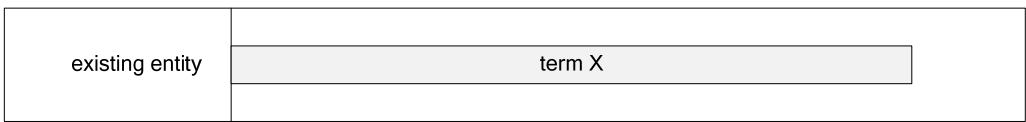


Figure 3-9: Changing to full-term

“Term X” will be divided on the first end date of the imported data. (Figure 3-10)

Terminable information of “term X” will be updated.

```
06: createTerm (term Y) // term Y: from the start date of term 2 up to the system end date
07: updateTerm (term X) // term X: from the system start date up to the end date of term 1
08: update??? (term X)
```

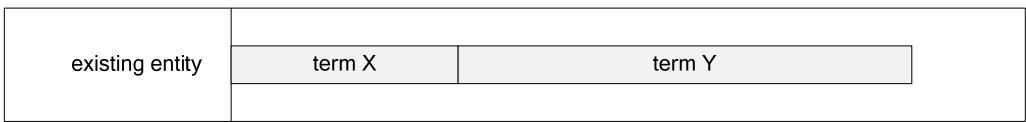


Figure 3-10: Dividing term X

“Term Y” will be divided on the second end date of the imported data.(Figure 3-11)

Terminable information of “term Y” will be updated.

```
09: createTerm (term Z) // term Z: from the start date of term 3 up to the system end date
10: updateTerm (term Y) // term Y: from the start date of term 2 up to the end date of term 2
11: update??? (term Y)
```

The last term will not be divided. Terminable information of “term Z” will be updated.

```
12: updateTerm (term Z)
13: update??? (term Z)
```

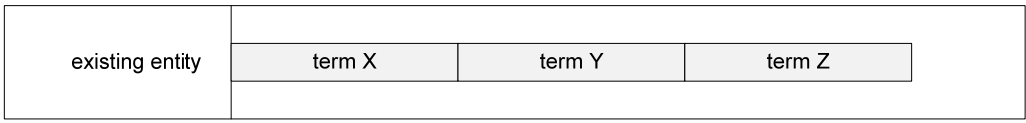


Figure 3-11: Creating term Y



# 4 Export

## 4.1 Outline

IM-Common Master provides functions of exporting master information. There are two types of exporting methods: one is “snapshot export” with which a snapshot of a specified date is exported, and the other is “full-term export” with which full-term beginning from the system start date up to the system end date is exported.

For data files to be used for exporting, two types of format, namely CSV and XML can be used.

In XML format all the term information will be exported, whereas in CSV format term information will not be exported, only valid data for a particular date will be exported. There is no difference in the exported data of these formats, except term information. Regardless of which format is used, data files once exported can be imported again.

Table 4-1: Function comparison

	Snapshot		Full-term
valid locale	no restriction		no restriction
valid term	just one term over the specified date		all the term being present
data file	CSV	XML	XML
term information to be exported (start date/end date)	none	export target term	all exported
unit of file	per entity		per data area

## 4.2 Snapshot export

In snapshot export, a snapshot of a particular date specified is exported.

- For entities with terminable information, term information present on the specified date will be the export target.
- For entities not terminalized, information will be exported regardless of the date.
- All the internationalization information will be exported.
- Export base date will be specified in the configuration file.
- All the data will be exported to one file.
- Format used for exporting can be chosen either CSV or XML.
- When exporting in CSV format, start date/end date of the term will not be exported.
- When exporting in XML format, start date/end date of the export target term will be exported.

## 4.3 Full term export

In full-term export, data on the whole term from the system start date up to the system end date will be exported.

- Terminable information and non-terminable information will all be exported.
- All the internationalization information will be exported.
- All the data will be exported to one file.
- Only XML format can be used for exporting the file.

## 4.4 Filtering function

Filtering function is the one by which export target data is restricted when being exported. In restricting export targets, such entities as defined in each data area can be specified.

- An entity specified as filtering target and its associated data will be the export target.
- Entities not associated with the one specified as filtering target will all be the export targets.
  - ◆ This corresponds to the categories and category-items of each data area.
- More than one target cannot be specified.
- For how to configure, refer to section 6.2.2.7.
- Locale to be exported cannot be specified.
  - ◆ This is because if only a part of locales is extracted, it becomes impossible to maintain consistency between entities.

# 5 Data file format

This chapter explains about data file formats for import/export.

## 5.1 CSV format

This section shows CSV format used for the import/export functions of IM-Common Master.

Unless specifically described in the “Notes” column, any character string may be specified. For the upper limit on the number of characters, refer to the separate document “IM-Common Master Database Definitions”.

The word “required” in the CSV definition table means it can be registered with null characters, not meaning that no description is necessary in the data file. When specifying notes without any abbreviation and/or search name, null characters should be specified for the abbreviation/search name.

For items of “internationalization” column marked with a circle, arbitrary data can be specified when registering more than on internationalization information. Those not marked are not internationalized, so identical one should be specified.

- Entity of the target file

In CSV format, data file needs to be divided for each entity. When executing import/export, entities will be specified with type attribute of the targeted configuration file. For details on configuration file, refer to Chapter 6 together.

Example of specifying a department for the target data file.

```
05: <file type="department">im_master/import/data.csv</file>
```

### 5.1.1 Company group

#### 5.1.1.1 Company group

Table 5-1: Company-group

	Item name	Header	Required	Internationalization	Notes
1	company-group-set-code	company_group_set_cd	○		
2	company-group-code	company_group_cd	○		
3	sort-key	sort_key	○		numerical value: 0 - 99999
4	delete-flag	delete_flag	○		“true” / “false”
5	locale-ID	locale_id	○	○	language code
6	company-group-name	company_group_name	○	○	
7	company-group-short-name	company_group_short_name		○	
8	company-group-search-name	company_group_search_name		○	
9	notes	notes		○	

#### 5.1.1.2 Company-group-inclusion

Table 5-2: Company-group-inclusion

	Item name	Header	Required	Internationalization	Notes
--	-----------	--------	----------	----------------------	-------

1	company-group-set-code	company_group_set_cd	○		
2	company-group-code	company_group_cd	○		
3	parent-company-group-code	parent_company_group_cd	○		
4	delete-flag	delete_flag	○		“true” / “false”

5.1.1.3 Company-group-attach

Table 5-3: Company-group-attach

	Item name	Header	Required	Internationalization	Notes
1	company-group-set-code	company_group_set_cd	○		
2	company-group-code	company_group_cd	○		
3	company-code	company_cd	○		
4	delete-flag	delete_flag	○		“true” / “false”

5.1.2 Company-department

5.1.2.1 Department

Table 5-4: Department

	Item name	Header	Required	Internationalization	Notes
1	company-code	company_cd	○		
2	department-set-code	department_set_cd	○		
3	department-code	department_cd	○		
4	sort-key	sort_key	○		numerical value: 0 - 99999
5	delete-flag	delete_flag	○		“true” / “false”
6	locale-ID	locale_id	○	○	language code
7	department-name	department_name	○	○	
8	department-short-name	department_short_name		○	
9	department-search-name	department_search_name		○	
10	country-code	country_cd		○	
11	zip-code	zip_code		○	
12	address-1	address1		○	
13	address-2	address2		○	
14	address-3	address3		○	
15	telephone-number	telephone_number		○	
16	extension-number	extension_number		○	
17	fax-number	fax_number		○	
18	extension-fax-number	extension_fax_number		○	
19	email-address-1	email_address1		○	
20	email-address-2	email_address2		○	
21	URL	url		○	
22	notes	notes		○	

5.1.2.2 Department-inclusion

Table 5-5: Department-inclusion

	Item name	Header	Required	Internationalization	Notes
--	-----------	--------	----------	----------------------	-------

1	company-code	company_cd	<input type="radio"/>		
2	department-set-code	department_set_cd	<input type="radio"/>		
3	department-code	department_cd	<input type="radio"/>		
4	parent-department-code	parent_department_cd	<input type="radio"/>		
5	delete-flag	delete_flag	<input type="radio"/>		“true” / “false”

### 5.1.2.3 Post

Table 5-6: Post

	Item name	Header	Required	Internationalization	Notes
1	company-code	company_cd	<input type="radio"/>		
2	department-set-code	department_set_cd	<input type="radio"/>		
3	post-code	post_cd	<input type="radio"/>		
4	sort key	sort_key	<input type="radio"/>		numerical value: 0 - 99999
5	delete-flag	delete_flag	<input type="radio"/>		“true” / “false”
6	rank	rank	<input type="radio"/>		numerical value: 0 - 99999
7	locale-ID	locale_id	<input type="radio"/>	<input type="radio"/>	language code
8	post-name	post_name	<input type="radio"/>	<input type="radio"/>	
9	notes	notes		<input type="radio"/>	

### 5.1.2.4 Department-attach/department-attach-post

Table 5-7: Department-attach/department-attach-post

	Item name	Header	Required	Internationalization	Notes
1	company-code	company_cd	<input type="radio"/>		
2	department-set-code	department_set_cd	<input type="radio"/>		
3	department-code	department_cd	<input type="radio"/>		
4	user-code	user_cd	<input type="radio"/>		
5	main-attach-flag	department_main			“true” / “false”
6	delete-flag	delete_flag	<input type="radio"/>		“true” / “false”
7	post-code	post_cd			

### 5.1.2.5 Department-category

Table 5-8: Department-category

	Item name	Header	Required	Internationalization	Notes
1	category-code	category_cd	<input type="radio"/>		
2	delete-flag	delete_flag	<input type="radio"/>		“true” / “false”
3	category-type	category_type	<input type="radio"/>		“1” / “0”
4	sort-key	sort_key	<input type="radio"/>		numerical value: 0 - 99999
5	locale-ID	locale_id	<input type="radio"/>	<input type="radio"/>	language code
6	category-name	category_name	<input type="radio"/>	<input type="radio"/>	
7	notes	notes		<input type="radio"/>	

5.1.2.6 Department-category-item

Table 5-9: Department-category-item

	Item name	Header	Required	Internationalization	Notes
1	category-code	category_cd	<input type="radio"/>		
2	category-item-code	category_item_cd	<input type="radio"/>		
3	delete-flag	delete_flag	<input type="radio"/>		“true” / “false”
4	sort-key	sort_key	<input type="radio"/>		numerical value: 0 - 99999
5	locale-ID	locale_id	<input type="radio"/>	<input type="radio"/>	language code
6	category-item-name	category_item_cd	<input type="radio"/>	<input type="radio"/>	
7	notes	notes		<input type="radio"/>	

5.1.2.7 Department-category-attach

Table 5-10: Department-category-attach

	Item name	Header	Required	Internationalization	Notes
1	company-code	company_cd	<input type="radio"/>		
2	department-set-code	department_set_cd	<input type="radio"/>		
3	department-code	department_cd	<input type="radio"/>		
4	category-code	category_cd	<input type="radio"/>		
5	category-item-code	category_item_cd	<input type="radio"/>		
6	delete-flag	delete_flag	<input type="radio"/>		“true” / “false”

5.1.3 Public-group

5.1.3.1 Public-group

Table 5-11: Public-group

	Item name	Header	Required	Internationalization	Notes
1	public-group-set-code	public_group_set_cd	<input type="radio"/>		
2	public-group-code	public_group_cd	<input type="radio"/>		
3	sort-key	sort_key	<input type="radio"/>		numerical value: 0 - 99999
4	delete-flag	delete_flag	<input type="radio"/>		“true” / “false”
5	locale-ID	locale_id	<input type="radio"/>	<input type="radio"/>	language code
6	public-group-name	public_group_name	<input type="radio"/>	<input type="radio"/>	
7	public-group-short-name	public_group_short_name		<input type="radio"/>	
8	public-group-search-name	public_group_search_name		<input type="radio"/>	
9	notes	notes		<input type="radio"/>	

5.1.3.2 Public-group-inclusion

Table 5-12: Public-group-inclusion

	Item name	Header	Required	Internationalization	Notes
1	public-group-set-code	public_group_set_cd	<input type="radio"/>		

2	public-group-code	public_group_cd	○		
3	parent-public-group-code	parent_public_group_cd	○		
4	delete-flag	delete_flag	○		“true” / “false”

### 5.1.3.3 Role

Table 5-13: Role

	Item name	Header	Required	Internationalization	Notes
1	public-group-set-code	public_group_set_cd	○		
2	role-code	role_cd	○		
3	sort-key	sort_key	○		numerical value: 0 - 99999
4	delete-flag	delete_flag	○		“true” / “false”
5	rank	rank	○		numerical value: 0 - 99999
6	locale-ID	locale_id	○	○	language code
7	role-name	role_name	○	○	
8	notes	notes		○	

### 5.1.3.4 Public-group-attach/public-group-attach-role

Table 5-14: Public-group-attach/public-group-attach-role

	Item name	Header	Required	Internationalization	Notes
1	public-group-set-code	public_group_set_cd	○		
2	public-group-code	public_group_cd	○		
3	user-code	user_cd	○		
4	delete-flag	delete_flag	○		“true” / “false”
5	role-code	role_cd	○		

### 5.1.3.5 Public-group-category

Table 5-15: Public-group-category

	Item name	Header	Required	Internationalization	Notes
1	category-code	category_cd	○		
2	delete-flag	delete_flag	○		“true” / “false”
3	category-type	category_type	○		“1” / “0”
4	sort-key	sort_key	○		numerical value: 0 - 99999
5	locale-ID	locale_id	○	○	language code
6	category-name	category_name	○	○	
7	notes	notes		○	

### 5.1.3.6 Public-group-category-item

Table 5-16: Public-group-category-item

	Item name	Header	Required	Internationalization	Notes
1	category-code	category_cd	○		
2	category-item-code	category_item_cd	○		
3	delete-flag	delete_flag	○		“true” / “false”

4	sort-key	sort_key	○		numerical value: 0 - 99999
5	locale-ID	locale_id	○	○	language code
6	category-item-name	category_item_cd	○	○	
7	notes	notes		○	

### 5.1.3.7 Public-group-category-attach

Table 5-17: Public-group-category-attach

	Item name	Header	Required	Internationalization	Notes
1	public-group-set-code	public_group_set_cd	○		
2	public-group-code	public_group_cd	○		
3	category-code	category_cd	○		
4	category-item-code	category_item_cd	○		
5	delete-flag	delete_flag	○		“true” / “false”

## 5.1.4 Private-group

### 5.1.4.1 Private-group

Table 5-18: Private-group

	Item name	Header	Required	Internationalization	Notes
1	user-code	user_cd	○		
2	private-group-code	private_group_cd	○		
3	private-group-name	private_group_name	○		
4	private-group-search-name	private_group_search_name	○		
5	notes	notes	○		
6	sort-key	sort_key			numerical value: 0 - 99999

### 5.1.4.2 Private-group-attach

Table 5-19: Private-group-attach

	Item name	Header	Required	Internationalization	Notes
1	owner-code	owner_cd	○		
2	private-group-code	private_group_cd	○		
3	user-code	user_cd	○		
4	sort-key	sort_key	○		numerical value: 0 - 99999

## 5.1.5 User

### 5.1.5.1 User

Table 5-20: User

	Item name	Header	Required	Internationalization	Notes
1	user-code	user_cd	○		
2	sort-key	sort_key	○		numerical value: 0 - 99999



3	delete-flag	delete_flag	<input type="radio"/>		“true” / “false”
4	locale-ID	locale_id	<input type="radio"/>	<input type="radio"/>	language code
5	user-name	user_name	<input type="radio"/>	<input type="radio"/>	
6	user-search-name	user_search_name		<input type="radio"/>	
7	sex	sex			
8	country-code	country_cd		<input type="radio"/>	
9	zip-code	zip_code		<input type="radio"/>	
10	address-1	address1		<input type="radio"/>	
11	address-2	address2		<input type="radio"/>	
12	address-3	address3		<input type="radio"/>	
13	telephone-number	telephone_number		<input type="radio"/>	
14	extension-number	extension_number		<input type="radio"/>	
15	fax-number	fax_number		<input type="radio"/>	
16	extension-fax-number	extension_fax_number		<input type="radio"/>	
17	mobile-number	mobile_number		<input type="radio"/>	
18	email-address-1	email_address1		<input type="radio"/>	
19	email-address-2	email_address2		<input type="radio"/>	
20	mobile-email-address	mobile_email_address		<input type="radio"/>	
21	URL	url		<input type="radio"/>	
22	notes	notes		<input type="radio"/>	

### 5.1.5.2 User-category

Table 5-21: User-category

	Item name	Header	Required	Internationalization	Notes
1	category-code	category_cd	<input type="radio"/>		
2	delete-flag	delete_flag	<input type="radio"/>		“true” / “false”
3	category-type	category_type	<input type="radio"/>		“1” / “0”
4	sort-key	sort_key	<input type="radio"/>		numerical value: 0 - 99999
5	locale-ID	locale_id	<input type="radio"/>	<input type="radio"/>	language code
6	category-name	category_name	<input type="radio"/>	<input type="radio"/>	
7	notes	notes		<input type="radio"/>	

### 5.1.5.3 User-category-item

Table 5-22: User-category-item

	Item name	Header	Required	Internationalization	Notes
1	category-code	category_cd	<input type="radio"/>		
2	category-item-code	category_item_cd	<input type="radio"/>		
3	delete-flag	delete_flag	<input type="radio"/>		“true” / “false”
4	sort-key	sort_key	<input type="radio"/>		numerical value: 0 - 99999
5	locale-ID	locale_id	<input type="radio"/>	<input type="radio"/>	language code
6	category-item-name	category_item_cd	<input type="radio"/>	<input type="radio"/>	
7	notes	notes		<input type="radio"/>	

5.1.5.4 User-category-attach

Table 5-23: User-category-attach

	Item name	Header	Required	Internationalization	Notes
1	user-code	user_cd	○		
2	category-code	category_cd	○		
3	category-item-code	category_item_cd	○		
4	delete-flag	delete_flag	○		“true” / “false”

5.1.6 Corporation

5.1.6.1 Corporation

Table 5-24: Corporation

	Item name	Header	Required	Internationalization	Notes
1	corporation-set-code	corporation_set_cd	○		
2	corporation-code	corporation_cd	○		
3	sort-key	sort_key	○		numerical value: 0 - 99999
4	delete-flag	delete_flag	○		“true” / “false”
5	locale-ID	locale_id	○	○	language code
6	corporation-name	corporation_name	○	○	
7	corporation-short-name	corporation_short_name		○	
8	corporation-search-name	corporation_search_name		○	
9	country-code	country_cd		○	
10	zip-code	zip_code		○	
11	address-1	address1		○	
12	address-2	address2		○	
13	address-3	address3		○	
14	telephone-number	telephone number		○	
15	extension-number	extension_number		○	
16	fax-number	fax_number		○	
17	extension-fax-number	extension_fax_number		○	
18	email-address-1	email_address1		○	
19	email-address-2	email_address2		○	
20	URL	url		○	
21	notes	notes		○	

5.1.6.2 Corporation-inclusion

Table 5-25: Corporation-inclusion

	Item name	Header	Required	Internationalization	Notes
1	corporation-set-code	corporation_set_cd	○		
2	corporation-code	corporation_cd	○		
3	parent-corporation-code	parent_corporation_cd	○		
4	delete-flag	delete_flag	○		“true” / “false”

### 5.1.6.3 Corporation-attach

Table 5-26: Corporation-attach

	Item name	Header	Required	Internationalization	Notes
1	corporation-set-code	corporation_set_cd	○		
2	corporation-code	corporation_cd	○		
3	company-code	company_cd	○		
4	customer-code	customer_cd	○		
5	delete-flag	delete_flag	○		“true” / “false”

### 5.1.7 Customer

#### 5.1.7.1 Customer

Table 5-27: Customer

	Item name	Header	Required	Internationalization	Notes
1	company-code	company_cd	○		
2	customer-code	customer_cd	○		
3	sort-key	sort_key	○		numerical value: 0 - 99999
4	delete-flag	delete_flag	○		“true” / “false”
5	locale-ID	locale_id	○	○	language code
6	customer-name	customer_name	○	○	
7	customer-short-name	customer_short_name		○	
8	customer-search-name	customer_search_name		○	
9	country-code	country_cd		○	
10	zip-code	zip_code		○	
11	address-1	address1		○	
12	address-2	address2		○	
13	address-3	address3		○	
14	telephone-number	telephone_number		○	
15	extension-number	extension_number		○	
16	fax-number	fax_number		○	
17	extension-fax-number	extension_fax_number		○	
18	email-address-1	email_address1		○	
19	email-address-2	email_address2		○	
20	URL	url		○	
21	notes	notes		○	

### 5.1.8 Item-category

#### 5.1.8.1 Item-category

Table 5-28: Item-category

	Item name	Header	Required	Internationalization	Notes
1	item-category-set-code	item_category_set_cd	○		
2	item-category-code	item_category_cd	○		
3	sort-key	sort_key	○		numerical value:

					0 - 99999
4	delete-flag	delete_flag	<input type="radio"/>		“true” / “false”
5	locale-ID	locale_id	<input type="radio"/>	<input type="radio"/>	language code
6	item-category-name	item_category_name	<input type="radio"/>	<input type="radio"/>	
7	item-category-short-name	item_category_short_name		<input type="radio"/>	
8	item-category-search-name	item_category_search_name		<input type="radio"/>	
9	notes	notes		<input type="radio"/>	

### 5.1.8.2 Item-category-inclusion

Table 5-29: Item-category-inclusion

	Item name	Header	Required	Internationalization	Notes
1	item-category-set-code	item_category_set_cd	<input type="radio"/>		
2	item-category-code	item_category_cd	<input type="radio"/>		
3	parent-item-category-code	parent_item_category_cd	<input type="radio"/>		
4	delete-flag	delete_flag	<input type="radio"/>		“true” / “false”

### 5.1.8.3 Item-category-attach

Table 5-30: Item-category-attach

	Item name	Header	Required	Internationalization	Notes
1	item-category-set-code	item_category_set_cd	<input type="radio"/>		
2	item-category-code	item_category_cd	<input type="radio"/>		
3	company-code	company_cd	<input type="radio"/>		
4	item-code	item_cd	<input type="radio"/>		
5	delete-flag	delete_flag	<input type="radio"/>		“true” / “false”

## 5.1.9 Item

### 5.1.9.1 Item

Table 5-31: Item

	Item name	Header	Required	Internationalization	Notes
1	company-code	company_cd	<input type="radio"/>		
2	item-code	item_cd	<input type="radio"/>		
3	sort-key	sort_key	<input type="radio"/>		numerical value: 0 - 99999
4	delete-flag	delete_flag	<input type="radio"/>		“true” / “false”
5	locale-ID	locale_id	<input type="radio"/>	<input type="radio"/>	language code
6	item-name	item_name	<input type="radio"/>	<input type="radio"/>	
7	item-short-name	item_short_name		<input type="radio"/>	
8	item-search-name	item_search_name		<input type="radio"/>	
9	notes	notes		<input type="radio"/>	

### 5.1.10 Currency

#### 5.1.10.1 Currency-rate

Table 5-32: Currency-rate

	Item name	Header	Required	Internationalization	Notes
1	currency-code	currency_cd	○		
2	base-currency-code	base_currency_cd	○		
3	delete-flag	delete_flag	○		“true” / “false”
4	TTB	ttb	○		
5	TTS	tts	○		

## 5.2 XML format

This section shows XML format used for the import/export functions of IM-Common Master.

Unless specifically described in the “Notes” column, any character string may be specified. For the upper limit on the number of characters, refer to the separate document “IM-Common Master Database Definitions”.

Attribute names marked with a circle in the “required” column are all required; however, if the element per se to which the attribute belongs can be omitted, there would be no description of that attribute per se. Only when the element to which the attribute belongs exists, that attribute is required.

Root element of data file is <root>. In the XML structure definition tables shown in the next section and thereafter, it is omitted for simplification.

In addition, term-code (term-cd) is not described for term element (term). Term-code can be exported, but is not used for import. A new term-code will always be assigned. Therefore, description on term-code is omitted in the structure definition tables.

### 5.2.1 Company-group

Table 5-33: Company-group

Element name	Attribute name	Required	Notes
company-group-set			
	company-group-set-cd	○	
company-group			
	company-group-cd	○	
	sort-key	○	numerical value: 0 - 99999
term			
	start-date	○	date-type character string in yyyy-MM-dd format
	end-date	○	date-type character string in yyyy-MM-dd format
	delete-flag	○	“true” / “false”
locale		○	
	locale-id	○	language code
company-group-name		○	
company-attach			
	company-cd	○	
term		○	

		start-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format
		end-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format
		delete-flag	<input type="radio"/>	"true" / "false"
	inclusion			
	term		<input type="radio"/>	
		start-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format
		end-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format
		delete-flag	<input type="radio"/>	"true" / "false"
	relation		<input type="radio"/>	
		parent-company-group-cd	<input type="radio"/>	
		company-group-cd	<input type="radio"/>	

### 5.2.2 Company-department

Table 5-34: Company-department

Element name	Attribute name	Required	Notes
company			
	company-cd	<input type="radio"/>	
department-set			
	department-set-cd	<input type="radio"/>	
department			
	department-cd	<input type="radio"/>	
	sort-key	<input type="radio"/>	numerical value: 0 - 99999
term			
	start-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format
	end-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format
	delete-flag	<input type="radio"/>	"true" / "false"
locale			
	locale-id	<input type="radio"/>	language code
department-name		<input type="radio"/>	
	department-short-name		
	department-search-name		
	notes		
category-attach			
	category-cd	<input type="radio"/>	
	category-item-cd	<input type="radio"/>	
	delete-flag	<input type="radio"/>	"true" / "false"
user-attach			
	user-cd	<input type="radio"/>	

	term		<input type="radio"/>		
		start-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format	
		end-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format	
		delete-flag	<input type="radio"/>	“true” / “false”	
		post-attach			
			post-cd	<input type="radio"/>	
		inclusion			
	term			<input type="radio"/>	
		start-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format	
		end-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format	
		delete-flag	<input type="radio"/>	“true” / “false”	
		relation		<input type="radio"/>	
			parent-department-cd	<input type="radio"/>	
		department-cd	<input type="radio"/>		
	post				
		post-cd	<input type="radio"/>		
		rank	<input type="radio"/>		
		sort-key	<input type="radio"/>	numerical value: 0 - 99999	
term			<input type="radio"/>		
	start-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format		
	end-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format		
	delete-flag	<input type="radio"/>	“true” / “false”		
	locale		<input type="radio"/>		
locale-id		<input type="radio"/>	language code		
	post-name		<input type="radio"/>		
	notes				
category					
		category-cd	<input type="radio"/>		
		delete-flag	<input type="radio"/>	“true” / “false”	
		sort-key	<input type="radio"/>	numerical value: 0 - 99999	
		category-type	<input type="radio"/>	“1” / “0”	
locale					
		locale-id	<input type="radio"/>	language code	
	category-name		<input type="radio"/>		
	notes				
category-item					
		category-item-cd	<input type="radio"/>		
		delete-flag	<input type="radio"/>	“true” / “false”	
		sort-key	<input type="radio"/>	numerical value: 0 - 99999	

	locale		<input type="radio"/>	
		locale-id	<input type="radio"/>	language code
	category-item-name		<input type="radio"/>	
	notes			

### 5.2.3 Public-group

Table 5-35: Public-group

Element name	Attribute name	Required	Notes
public-group-set			
	public-group-set-cd	<input type="radio"/>	
public-group			
	public-group-cd	<input type="radio"/>	
	sort-key	<input type="radio"/>	numerical value: 0 - 99999
term			
	start-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format
	end-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format
	delete-flag	<input type="radio"/>	“true” / “false”
locale			
	locale-id	<input type="radio"/>	language code
public-group-name		<input type="radio"/>	
	public-group-short-name		
	public-group-search-name		
	notes		
category-attach			
	category-cd	<input type="radio"/>	
	category-item-cd	<input type="radio"/>	
	delete-flag	<input type="radio"/>	“true” / “false”
user-attach			
	user-cd	<input type="radio"/>	
term		<input type="radio"/>	
	start-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format
	end-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format
	delete-flag	<input type="radio"/>	“true” / “false”
role-attach			
	role-cd	<input type="radio"/>	
inclusion			
term		<input type="radio"/>	
	start-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format
	end-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format



		delete-flag	<input type="radio"/>	“true” / “false”
	relation		<input type="radio"/>	
		parent-public-group-cd	<input type="radio"/>	
		public-group-cd	<input type="radio"/>	
	role			
		role-cd	<input type="radio"/>	
		rank	<input type="radio"/>	
		sort-key	<input type="radio"/>	numerical value: 0 - 99999
	term		<input type="radio"/>	
		start-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format
		end-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format
		delete-flag	<input type="radio"/>	“true” / “false”
	locale		<input type="radio"/>	
		locale-id	<input type="radio"/>	language code
	role-name		<input type="radio"/>	
	notes			
	category			
		category-cd	<input type="radio"/>	
		delete-flag	<input type="radio"/>	“true” / “false”
		sort-key	<input type="radio"/>	numerical value: 0 - 99999
		category-type	<input type="radio"/>	“1” / “0”
	locale			
		locale-id	<input type="radio"/>	language code
	category-name		<input type="radio"/>	
	notes			
	category-item			
		category-item-cd	<input type="radio"/>	
		delete-flag	<input type="radio"/>	“true” / “false”
		sort-key	<input type="radio"/>	numerical value: 0 - 99999
	locale		<input type="radio"/>	
		locale-id	<input type="radio"/>	language code
	category-item-name		<input type="radio"/>	
	notes			

## 5.2.4 Private-group

Table 5-36: Private-group

Element name	Attribute name	Required	Notes
private-group			
	private-group-cd	<input type="radio"/>	
	user-cd	<input type="radio"/>	
	sort-key	<input type="radio"/>	numerical value: 0 - 99999
private-group-name		<input type="radio"/>	
private-group-search-name			

notes			
user-attach			
	user-cd	<input type="radio"/>	
	sort-key	<input type="radio"/>	numerical value: 0 - 99999

### 5.2.5 User

Table 5-37: User

Element name	Attribute name	Required	Notes
user			
	user-cd	<input type="radio"/>	
	sort-key	<input type="radio"/>	numerical value: 0 - 99999
term			
	start-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format
	end-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format
	delete-flag	<input type="radio"/>	“true” / “false”
locale			
	locale-id	<input type="radio"/>	language code
user-name		<input type="radio"/>	
	user-search-name		
	sex		
	country-cd		
	zip-code		
	address1		
	address2		
	address3		
	telephone-number		
	extension-number		
	fax-number		
	extension-fax-number		
	mobile-number		
	email-address1		
	email-address2		
	mobile-email-address		
	url		
notes			
category-attach			
	category-item-cd	<input type="radio"/>	
	delete-flag	<input type="radio"/>	“true” / “false”
category			
	category-cd	<input type="radio"/>	
	delete-flag	<input type="radio"/>	“true” / “false”
	sort-key	<input type="radio"/>	numerical value: 0 - 99999
	category-type	<input type="radio"/>	“1” / “0”

locale			
	locale-id	<input type="radio"/>	language code
category-name		<input type="radio"/>	
	notes		
category-item			
	category-item-cd	<input type="radio"/>	
	delete-flag	<input type="radio"/>	“true” / “false”
	sort-key	<input type="radio"/>	numerical value: 0 - 99999
locale		<input type="radio"/>	
	locale-id	<input type="radio"/>	language code
category-item-name		<input type="radio"/>	
	notes		

## 5.2.6 Corporation

Table 5-38: Corporation

Element name	Attribute name	Required	Notes
corporation-set			
	corporation-set-cd	<input type="radio"/>	
corporation			
	corporation-cd	<input type="radio"/>	
	sort-key	<input type="radio"/>	numerical value: 0 - 99999
term			
	start-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format
	end-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format
	delete-flag	<input type="radio"/>	“true” / “false”
locale			
	locale-id	<input type="radio"/>	language code
corporation-name		<input type="radio"/>	
	corporation-short-name		
	corporation-search-name		
	notes		
customer-attach			
	customer-cd	<input type="radio"/>	
term		<input type="radio"/>	
	start-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format
	end-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format
	delete-flag	<input type="radio"/>	“true” / “false”
inclusion			
term		<input type="radio"/>	
	start-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format

		end-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format
		delete-flag	<input type="radio"/>	"true" / "false"
	relation		<input type="radio"/>	
		parent-corporation-cd	<input type="radio"/>	
		corporation-cd	<input type="radio"/>	

### 5.2.7 Customer

Table 5-39: Customer

Element name	Attribute name	Required	Notes
customer			
	customer-cd	<input type="radio"/>	
term		<input type="radio"/>	
	start-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format
	end-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format
	delete-flag	<input type="radio"/>	"true" / "false"
locale			
	locale-id	<input type="radio"/>	language code
customer-name		<input type="radio"/>	
	customer-short-name		
	customer-search-name		
	notes		

### 5.2.8 Item-category

Table 5-40: Item-category

Element name	Attribute name	Required	Notes
item-category-set			
	item-category-set-cd	<input type="radio"/>	
item-category		<input type="radio"/>	
	item-category-cd	<input type="radio"/>	
	sort-key	<input type="radio"/>	numerical value: 0 - 99999
term			
	start-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format
	end-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format
	delete-flag	<input type="radio"/>	"true" / "false"
locale		<input type="radio"/>	
	locale-id	<input type="radio"/>	language code
item-category-name		<input type="radio"/>	
	item-category-short-name		
	item-category-search-name		

		notes			
	item-attach				
		customer-cd	<input type="radio"/>		
	term		<input type="radio"/>		
		start-date	<input type="radio"/>	date-type	character string in yyyy-MM-dd format
		end-date	<input type="radio"/>	date-type	character string in yyyy-MM-dd format
		delete-flag	<input type="radio"/>	"true" / "false"	
	inclusion				
	term		<input type="radio"/>		
		start-date	<input type="radio"/>	date-type	character string in yyyy-MM-dd format
		end-date	<input type="radio"/>	date-type	character string in yyyy-MM-dd format
		delete-flag	<input type="radio"/>	"true" / "false"	
	relation		<input type="radio"/>		
		parent-item-category-cd	<input type="radio"/>		
		item-category-cd	<input type="radio"/>		

## 5.2.9 Item

Table 5-41: Item

Element name	Attribute name	Required	Notes
item			
	item-cd	<input type="radio"/>	
	sort-key	<input type="radio"/>	numerical value: 0 - 99999
term			
	start-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format
	end-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format
	delete-flag	<input type="radio"/>	"true" / "false"
locale			
	locale-id	<input type="radio"/>	language code
	item-name	<input type="radio"/>	
	item-short-name		
	item-search-name		
	notes		

## 5.2.10 Currency

Table 5-42: Currency-rate

Element name	Attribute name	Required	Notes
currency-rate		<input type="radio"/>	
	currency-cd	<input type="radio"/>	

	base-currency-cd	<input type="radio"/>	
term		<input type="radio"/>	
	start-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format
	end-date	<input type="radio"/>	date-type character string in yyyy-MM-dd format
	delete-flag	<input type="radio"/>	“true” / “false”
values		<input type="radio"/>	
	buying	<input type="radio"/>	
	selling	<input type="radio"/>	

# 6 Executing import/export.

Import/export functions of IM-Common Master are implemented as parts of APIs. Standard import/export can be executed from batches.

## 6.1 Outline of execution program

Import/export functions of IM-Common Master consist of the following two programs:

- Batch startup program
  - ◆ It collects necessary information and starts up import/export API.
- Import/export API
  - ◆ It reads configuration file and executes import/export.

### 6.1.1 Batch program

Batch program handles getting necessary information for starting up API, getting import/export configuration files and transactions.

Through initial data import carried out after installing intra-mart WebPlatform/AppFramework, each of import/export batches shown in Table 6-1 will be registered. For details on how to execute these batches, refer to the separate document “Group Administrator Operation Guide”.

Table 6-1: Batch ID list

Batch ID	Batch name	Batch program class
IMMCompanyGrpImport	Company Group Import	StandardCompanyGroupBatchImporter
IMMCompanyGrpExport	Company Group Export	StandardCompanyGroupBatchExporter
IMMCompanyImport	Company-department Import	StandardCompanyBatchImporter
IMMCompanyExport	Company-department Export	StandardCompanyBatchExporter
IMMPublicGrpImport	Public-group Import	StandardPublicGroupBatchImporter
IMMPublicGrpExport	Public-group Export	StandardPublicGroupBatchExporter
IMMPrivateGrpImport	Private-group Import	StandardPrivateGroupBatchImporter
IMMPrivateGrpExport	Private-group Export	StandardPrivateGroupBatchExporter
IMMUserImport	User Import	StandardUserBatchImporter
IMMUserExport	User Export	StandardUserBatchExporter
IMMCorporationImport	Corporation Import	StandardCorporationBatchImporter
IMMCorporationExport	Corporation Export	StandardCorporationBatchExporter
IMMCustomerImport	Customer Import	StandardCustomerBatchImporter
IMMCustomerExport	Customer Export	StandardCustomerBatchExporter
IMMItemCtgImport	Item-category Import	StandardItemCategoryBatchImporter
IMMItemCtgExport	Item-category Export	StandardItemCategoryBatchExporter
IMMItemImport	Item Import	StandardItemBatchImporter
IMMItemExport	Item Export	StandardItemBatchExporter
IMMRateImport	Currency-rate Import	StandardCurrencyRateBatchImporter
IMMRateExport	Currency-rate Export	StandardCurrencyRateBatchExporter

Batch program packages are created with JAVA, and all of them are “jp.co.intra\_mart.system.master.batch”.

### 6.1.2 Import/export API

Import/export programs are implemented as parts of IM-Common Master API. When starting up import/export, API for the data area is used respectively.

#### 6.1.2.1 Import/export API processing: Outline

1. Analyzing the configuration file

2. Creating the concurrent execution control file.
3. Copying the import target file to Application Runtime
4. Analyzing the import target file.
5. Executing import.
6. Deleting the copied import target file.
7. Deleting the concurrent execution control file.

### 6.1.2.2 Starting up import/export from the API Manager

Import/export can also be executed by directly calling the method of API Manager.

For details on how to execute from API, refer to Appendix A.

### 6.1.2.3 Function to prevent concurrent execution of import/export.

Import/export functions have locking functions so as not to execute import/export concurrently. Processings having the same name specified in import/export configuration file and having the same target data area cannot be executed concurrently.

Upon starting import/export, a concurrent execution control file will be created in the Storage Service. Import/export will start if no control file exist. If the control file already exists, import/export will not be executed and be finished.

Path of the control file that will be created:

```
%StorageService%/master/%<login-group-code>%/batch/%<data-area>%/%<processing-name>%
```

Control file will be deleted after import/export being finished, regardless of success/failure. However, in case of unforeseen finish (e.g. server down), control file may remain without being deleted. If such control file still remains without being deleted, interrupted import/export cannot be re-executed.

In such a case, relevant file should be deleted manually.

## 6.2 Configuration file

There are two types of configuration file format: for import and for export.

The batches registered through initial data import use common configuration files for every data area as follows:

Import configuration file: %StorageService%/system/im\_master/config/import\_config.xml

Export configuration file: %StorageService%/system/im\_master/config/export\_config.xml

These configuration files are defined by import/export batches.

Standard batches cannot change the locations of configuration files. If the location of a configuration file should be changed, it is necessary to create a batch program or to execute import/export directly from API.

### 6.2.1 Import configuration file

This is a configuration file used for executing import. Configuration items of import are common to the import functions, but they need to be described for each manager that executes the import.

Example of import configuration file (company-group)

```
01: <app-master-import>
02:   <company-group-import>
03:     <name>sample_import</name>
04:     <format>XML</format>
05:     <file>im_master/import/data.xml</file>
06:     <directory>im_master/import/data.</directory>
07:     <start-date>2000-01-01</start-date>
08:     <end-date>2010-01-01</end-date>
09:     <encoding >UTF-8</encoding >
```



```

10:     <extension-param name="replace-pattern" >true</extension-param >
11:     <extension-param name="sub-dirs" >false</extension-param >
12:   </company-group-import>
13: </ app-master-import >

```

### 6.2.1.1 Specifying the data area

Root of import configuration file is <app-master-import>. Immediately under the root there are data area identifying elements, in which configuration information should be described.

Data areas which can be specified are shown in Table 6-3 below.

Table 6-2: Target batch identifying elements

Batch name	Name of data area identifying element
Company-group	company-group-import
Company-department	company-import
Public-group	public-group-import
Private-group	private-group-import
User	user-import
Corporation	corporation-import
Customer	customer-import
Item-category	item-category-import
Item	item-import
Currency-rate	currency-rate-import

### 6.2.1.2 Processing name

Configure the import processing name as follows:

```
03:   <name>sample_import </name>
```

- The name configured as a processing name is unique to the import to be executed. Import processings having same name cannot be executed concurrently.
- Any character string can be specified, but characters not allowed to be used for file names cannot be used.
  - ◆ Characters not allowed to be used depend on the OS on which the Storage Service is operated. It is recommended to use alphanumeric characters and symbols which do not depend on the environment.

### 6.2.1.3 Import file format

Configure the file format as follows:

```
04:   <format>XML</format>
```

- Specify either CSV or XML.
- This cannot be omitted.

### 6.2.1.4 Import target file/directory

Specify the import target data file as follows:

```
05:   <file>im_master/import/data.xml</file>
```

Specify the directory where the import target data file is located as follows:

```
06:   <directory>im_master/import/data.</directory>
```

- All files in the directory will be the target. If there is any file the format of which cannot be imported, it is considered an error.

- More than one file or directory can be specified.
- Either a file or a directory must be specified. Omitting both is not allowed.
- Neither specifying a directory by a file element nor specifying a file by a directory element is allowed.
- If more than one file/directory is specified, import sequence is indeterminate.
- When importing in CSV format, it is necessary to specify the entity of the data file. For how to specify, refer to section 6.2.3.

**6.2.1.5 Import start date/import end date**

Specify the target term for importing the data as follows:

```
07: <start-date>2000-01-01</start-date>
08: <end-date>2010-01-01</end-date>
```

- The date should be specified in “yyyy-MM-dd” format.
- End date should be specified as “+ 1 day”. Since “base date of data acquisition < entity end date”, the data actually registered needs to be “entity end date plus one day”.
- If start date is omitted, import start date will be configured as such.
- If end date is omitted, the system end date will be configured as such.
- If both start date and end date are omitted, operation will vary depending on the format of the import data file:
  - ◆ XML: full-term import covering from the system start date up to the system end date will be executed.
  - ◆ CSV: snapshot import will be executed for the default date as mentioned above.

**6.2.1.6 Character encoding**

Specify the character encoding of the file as follows:

```
09: <encoding >UTF-8</encoding >
```

- This is required when importing in CSV format.
- When importing in XML format, it is determined according to the XML file header. This parameter will be ignored.
- This is the character encoding of the file to be imported. It does not have to be the character encoding of the Storage Service.

**6.2.1.7 Extension parameter**

Several parameters can be configured as extension parameters.

```
10: <extension-param name="replace-pattern" >true</extension-param >
11: <extension-param name="sub-dirs" >false</extension-param >
```

Table 6-3: Extension parameters available in standard import

Extension parameter name	Outline	Configurable values and default values
replace-pattern	Should pattern character string replacement of the import target be set as valid?	true or false default: true
sub-dirs	Should subfolder of the folder specified in the directory be the import target?	true or false default: false
with-header	Should the first line as a header be ignored when the import file is in CSV format?	true or false default: false

- Pattern character string allowed to be used:

- ◆ %group%  
login-group-code
- ◆ %date%  
the date on which import execution started (in yyyy-MM-dd format)

If a subdirectory is configured as the target, the file located in the lower directory than as specified should be specified, followed by executing import. As mentioned above, it should be noted that if any file not for import exists in the target directory, it is considered an error.

## 6.2.2 Export configuration file

This is a configuration file used for executing export. Configuration items of import are common to the export functions, but they need to be described for each manager that executes the export.

Example of export configuration file

```
01: <app-master-export>
02:   <company-group-export>
03:     <name>sample_export</name>
04:     <format>XML</format>
05:     <file>im_master/export/data.xml</file>
06:     <date>2099-12-31</date>
07:     <encoding >UTF-8</encoding >
08:     <filter name="company-group">company_group_cd_01</filter >
09:     <extension-param name="replace-pattern" >true</extension-param >
10:     <extension-param name="format-xml" >br|indent</extension-param >
11:   </company-group-export>
12: </ app-master-export >
```

### 6.2.2.1 Specifying the data area

Root of export configuration file is <app-master-export>. Immediately under the root there are data area identifying elements, in which configuration information should be described.

The example of export configuration file shown in the previous section is the one for a company-group.

Data areas which can be specified are shown in Table 6-4 below.

Table 6-4: Export target identifying elements

Batch name	Name of data area identifying element
Company-group	company-group-export
Company-department	company- export
Public-group	public-group- export
Private-group	private-group- export
User	user- export
Corporation	corporation- export
Customer	customer- export
Item-category	item-category- export
Item	item- export
Currency-rate	currency-rate- export

### 6.2.2.2 Processing name

Configure the export processing name as follows:

```
03:   <name>sample_export</name>
```

- Export processings having same name cannot be executed concurrently.
- Any character string can be specified, but characters not allowed to be used for file names cannot be used.
  - ◆ Characters not allowed to be used depend on the OS on which the Storage Service is operated. It is

recommended to use alphanumeric characters and symbols which do not depend on the environment.

**6.2.2.3 Export file format**

Configure the file format as follows:

```
04: <format>XML</format>
```

- Specify either CSV or XML.
- This cannot be omitted.

**6.2.2.4 Export target file**

Specify the export target file as follows:

```
05: <file>im_master/export/data.xml</file>
```

- Specify the file name including its extension.
- Directory cannot be specified.
- This cannot be omitted.
- Although more than one file can be specified, same contents will be exported for all of them.
- When exporting in CSV format, it is necessary to specify the entity of the data file. For how to specify, refer to section 6.2.3.

**6.2.2.5 Export base date**

Export snapshot of the base date as follows:

```
06: <date>2099-12-31</date>
```

- If this is omitted, operation will vary depending on the format of the export data file:
  - ◆ CSV: snapshot export will be executed for the date on which the export started.
  - ◆ XML: full-term export will be executed.

**6.2.2.6 Character encoding**

This means the character coding to be exported.

```
07: <encoding >UTF-8</encoding >
```

- This cannot be omitted.
- Any character encoding may be specified. It does not have to be the character encoding of the server.
- When exporting in XML format, this specified character encoding is exported also for the XML header.

**6.2.2.7 Output filter**

It is possible to filter the data to be exported.

```
08: <filter name="company-group">company_group_cd_01</filter >
```

From the table shown below, select one data to be filtered. Only the data related to the selected data will be the export target.

Table 6-5: Filtering target

Data area	Filtering target	Name attribute
company-group	company-group-set	company-group-set
company-department	company	company
public-group	public-group-set	public-group-set

private-group	owner-user	user
user	user	user
corporation	corporation-set	corporation-set
customer	company	company
item-category	item-category-set	item-category-set
item	company	company
currency-rate	none	none

### 6.2.2.8 Extension parameter

Several parameters can be configured as extension parameters.

```
09: <extension-param name="replace-pattern" >true</extension-param >
10: <extension-param name="format-xml" >br|indent</extension-param >
```

Table 6-6: Extension parameters available in standard export

Extension parameter name	Outline	Configurable values and default values
replace-pattern	Should pattern character string replacement of the export target be set as valid?	true or false default: true
format-xml	Specify the shaping method for exporting in XML.	br: insert line feed. indent: insert indent. trim: remove spaces before and after. Multiple specification can be combined with " ". default: "br"
with-header	Should the first line as a header be exported when exporting in CSV format?	true or false default: false
export-term-cd	Should term-code be exported when exporting in XML format?	true or false default: false

- Pattern character string allowed to be used:
  - ◆ %group%  
login-group-code
  - ◆ %date%  
the date on which import execution started (in yyyy-MM-dd format)
- Although term-code can be exported, it is not used for import. It is only for reference.

### 6.2.3 How to specify the data file in CSV format

Import/export are executed for each data area, but collective import/export of several entities included in a CSV file is not allowed. It is necessary to specify to which entity the data file of import/export belongs. This section explains how to specify the rule of an entity according to which the CSV has been created.

A “type” can be configured to the attribute of the file element or directory element within the configuration file.

Unique types have been assigned to each entity. These will be ignored when not specified or when having specified a character string not yet defined.

If a data file being a directory element has been specified, import will be executed assuming that all the files in that directory are the data files of the entity. Data files of different entities cannot be located within the same directory.

```
05: <file type="department">im_master/import/data.csv</file>
```

Table 6-7: Elements which can be specified as “type”

Data area	Entity	Character string to be specified
company-group	company-group	company-group
	company-group-inclusion	inclusion
	company-group-attach	attach-company
company-department	department	department
	department-inclusion	inclusion
	post	post
	department-attach/department-attach-post	attach-user
	department-category	category
	department-category-item	item
	department-category-attach	attach-item
public-group	public-group	public-group
	public-group-inclusion	inclusion
	role	role
	public-group-attach/public-group-attach-role	attach-user
	public-group-category	category
	public-group-category-item	item
	public-group-category-attach	attach-item
private-group	private-group	private-group
	private-group-attach	attach-user
user	user	user
	user-category	category
	user-category-item	item
	user-category-attach	attach-item
corporation	corporation	corporation
	corporation-inclusion	inclusion
	corporation-attach	attach-customer
customer	customer	customer
item	item	item
item-category	item-category	item-category
	item-category-inclusion	inclusion
	item-category-attach	attach-item
currency-rate	currency-rate	currency-rate

## 7 (Appendix): Execution from IM-Common Master API

Import/export functions are provided as API methods.

Each batch file registered through initial data import executes this API.

This section explains how to execute import/export from API.

- Want to import/export as parts of a program;
- Want to make appropriate use of configuration files;
- Want to execute import/export in which the category of plugin.xml is configured as other than standard.

These cases can be achieved by creating some program to execute the API.

When executing import from API, it is necessary to implement transaction processing.

If import has been executed without starting transaction, it will be executed in auto-commit mode. In this case, unforeseen interruption of import may possibly cause corruption of consistency in the master data. Please make sure that transaction is implemented, and roll back the status in case of interruption.

List 7-1: Sample program

```

01: String categoryName = "standard";
02: String updateUserCd = "system";
03: String loginGroupCd = arg0.getProperty("group");
04: String networkFilePath = "system/im_master/config/import_config.xml";
05: Locale defaultLocale = AccessSecurityManager.getInstance().getSessionInfo().getLocale();
06:
07: NetworkFile netFile = new NetworkFile(networkFilePath);
08: ByteArrayInputStream stream = new ByteArrayInputStream(netFile.load());
09:
10: CompanyManager manager = new CompanyManager(updateUserCd, defaultLocale, loginGroupCd);
11: manager.importData(categoryName, stream);

```

(exception: transaction processing is omitted)

Line 07: Configuration file is obtained from the Storage Service. It should be noted that this is not an import data file.

Line 08: InputStream is created with the byte array that has been read in. This will become one of the argument of the manager to be imported.

Line 11: Import is executed. The first argument "categoryName" is the category name configured in plugin.xml. InputStream that has already been created is passed together to the execution method.

Executing this processing will make import start.

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