# 1.3 Standard Report Design

## 1.3.1 Design policy and circumstances

The consistent human-machine interface is required to improve operational convenience of computer system.

The standards for the report design to be explained in this section are established, considering the consistent appearance e.g. layout of each component in a report and format of the data.

### 1.3.2 Report Layout

This section describes the standard issue in a report, such as header and body (user area) of the report.

Figure 1.3.2-1 shows the partition of report.

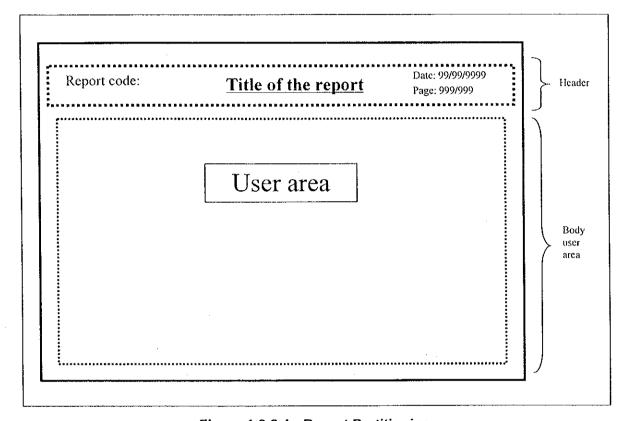


Figure 1.3.2-1: Report Partitioning

The explanations of each part of the report are:

• Header is on top of the paper

The header consists of following items:

- □ The report title is written at the center top.
  - The arial font is used. The size of the font is 14. The underline is attached.
- □ The report code is written on the left top corner.
  - The arial font is used. The size of the font is 10.
- Date is printed on the right top corner.
  - The arial font is used. The size of the font is 10.
- Page number (page / total) is printed just below the date
  - The arial font is used. The size of the font is 10.
- User area is below the header
  - The font of times new roman is used. The size of the font is 10. An underline is attached.

Margins are as follow:

Top : 15mm
 Bottom : 15mm
 Left : 15mm
 Right : 15mm

### 1.3.3 Types of Report

There are three types of reports, such as list pattern, card pattern, and slip pattern.

#### 1) List Pattern

Data are presented in the list format. It is possible to present more than one record on the report, data field in column direction and record in row direction.

Figure 1.3.3-1 shows the example of list pattern.

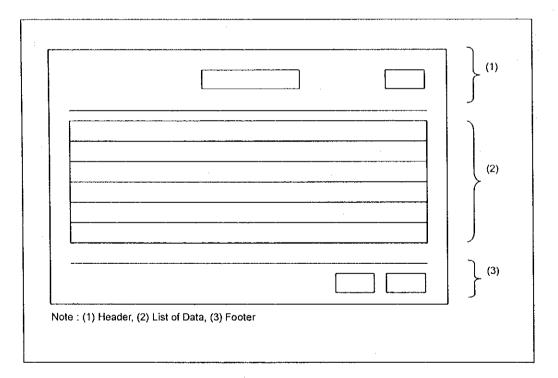


Figure 1.3.3-1: List Pattern

### 2) Card Pattern

Data are presented in the card format, and one report is available for one record only. Figure 1.3.3-2 shows an example of card pattern.

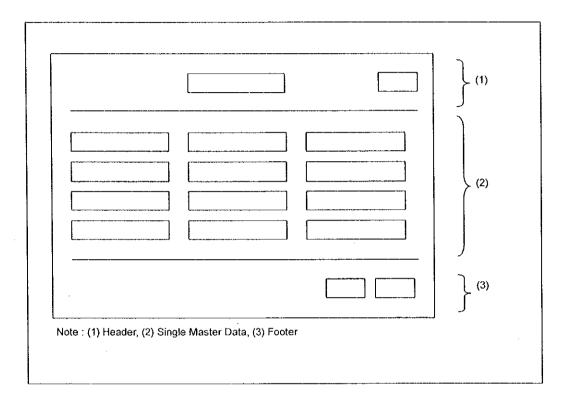


Figure 1.3.3-2 : Card Pattern

### 3) Slip Pattern

Data are presented as a master-detail type. One master data record is printed in master data report part, and one or more than one detailed data records are printed in the list of detail data report part.

Figure 1.3.3-3 shows an example of slip pattern.

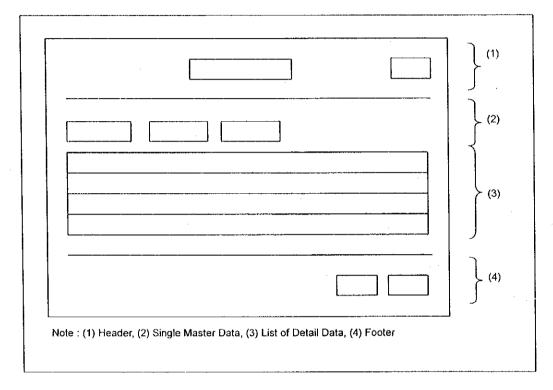


Figure 1.3.3-3: Slip Pattern

## 1.4 Message Design

#### 1.4.1 Design Policy and Circumstances

### 1.4.1.1 Design Policy

As for designing messages, the following points have been taken into consideration.

- Use simple and clear wordings.
- · Avoid using abbreviation or acronyms.
- · Correspond to its message code.
- Minimize the number of sentences. Single sentence would be preferable.

For detailed information, list of messages are described in Volume VI.

#### 1.4.1.2 Message Types

Messages are defined as a sentence or group of sentences used to indicate the status of processes. Messages are divided into four types, depending on their natures, that is, normal, error, response-requiring and warning messages. All types of messages are presented in the pop-up windows so that these important or critical messages should be obvious to users.

The natures of each type are as follows (Table 1.4.1.2-1):

Table 1.4.1.2-1: Message Types

Message types	Description	Note
Normal messages	Presented when the process was executed without error.	
Error messages	Presented when the process was terminated with error.	
Response-requiring messages	Presented when the system requires response from users (press YES/NO button, press key, enter numbers, and so on).	_
Warning messages	Presented before important or critical process might be operated.	

#### 1.4.1.3 Message Classification by Jobs

All messages are grouped into three classifications. The first one is "application common messages," which are used in two or more job groups, the second one is "job group messages," which are used exclusively for a certain job group, and the third one is "each job messages," which are used exclusively for a certain job.

Table 1.4.1.3-1 and Figure 1.4.1.3-1 show 3 classifications.

Table 1.4.1.3-1: Message Classification

Message classification	Description	Note
Application common message	This message is used in all application job.	
Job group common message	This message is used in one job group.	
Each job message	This message is used in one job.	_

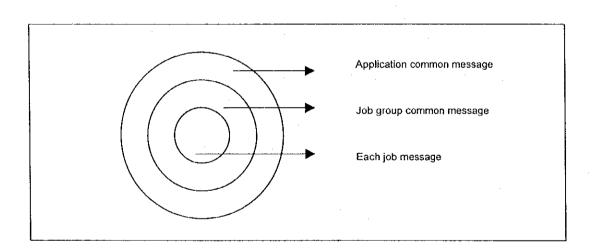


Figure 1.4.1.3-1: Message Classification

## 1.4.1.4 Message Code Format

As mentioned in 1.4.1.2 and 1.4.1.3, each message has unique message code to distinguish itself from others. A message code consists of 1 (one) alphabet symbol and 7 (seven) numeric symbols.

The format is shown in Figure 1.4.1.4.

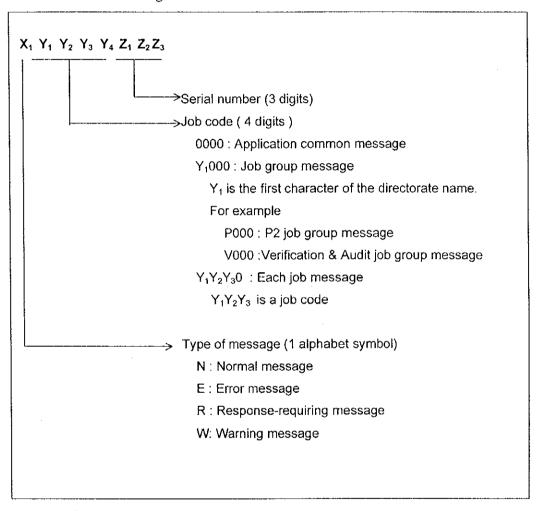


Figure: 1.4.1.4-1

Table 1.4.1.4-1 shows the basic patterns of application messages.



Table 1.4.1.4-1: Basic Patterns of Application Messages

Code Pattern	Description
$\underline{X}$ $\underline{0}$ $\underline{0}$ $\underline{0}$ $\underline{0}$ $\underline{Z}_1\underline{Z}_2\underline{Z}_3$ (message type) (fixed) (serial number)	Used for application common messages.
$\frac{X}{Y_1}$ $\frac{Y_1}{0}$ $\frac{0}{0}$ $\frac{0}{Z_1Z_2Z_3}$ (message type) (job group code) (serial number)	Used for job group messages.
$\frac{X}{X}$ $\frac{Y_1 Y_2 Y_3 0}{Y_1 G_2 G_3}$ (message type) (job code) (serial number)	Used for each job messages.

### 1.4.1.5 Pop-up Window Layout of Message

Messages are displayed for the user on a pop-up window. There are five pop-up windows:

- Normal Message
- Error Messages without SQL messages
- Error Messages with SQL messages
- · Response Requiring Messages
- · Warning Messages
- 1) Normal Message is displayed on screen as follows:

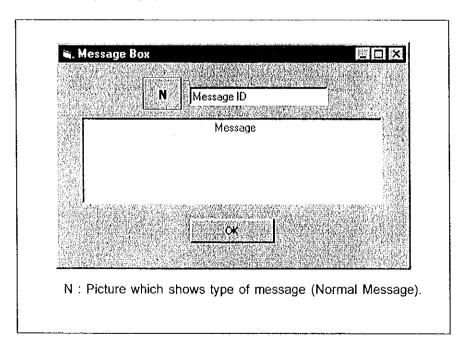


Figure 1.4.1.5-1: Normal Message Display

### 2) Error Message:

i) Error message without SQL message

All Error messages except Error message ID number E0000001 are displayed as follows:

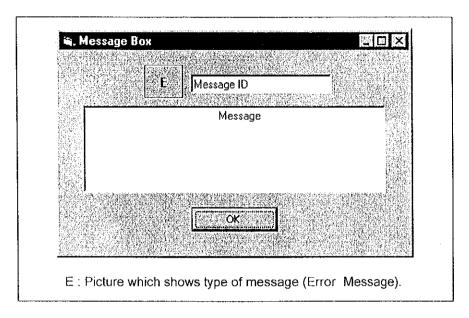


Figure 1.4.1.5-2 : Error Message Display (without SQL message)

ii) Error message with SQL message.

Error message ID number E0000001 is displayed as follows:

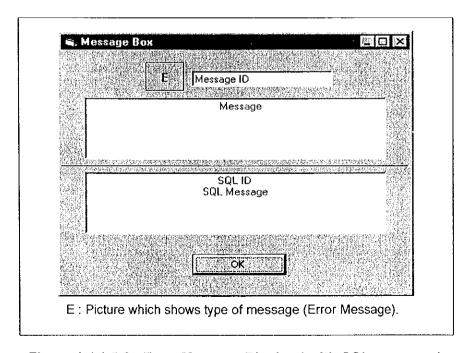


Figure 1.4.1.5-3: Error Message Display (with SQL message)

3) Response Requiring Message is displayed as follows:

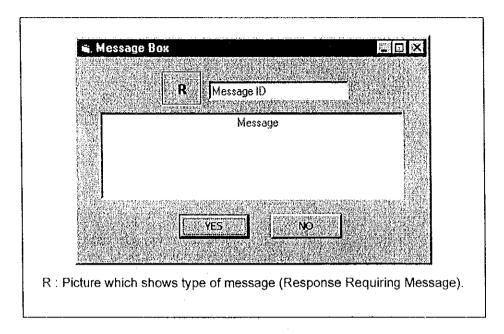


Figure 1.4.1.5-4: Response Requiring Message Display

4) Warning Message is displayed as follows:

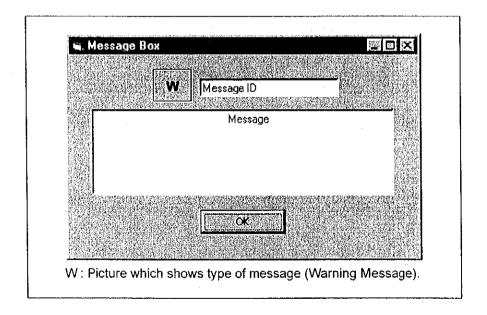


Figure 1.4.1.5-5: Warning Message Display

### 1.4.1.6 Message Output Mechanism

A mechanism of message output is described below. Further research is, however, necessary to realize the mechanism in actual developing environment.

- Application program (AP) calls message subroutine program (MSP) by using parameter Message ID.
- 2) Message subroutine program will send related message to user display.
- 3) Message subroutine program will receive a response from user display.
- 4) Message subroutine program will send the result to application program for further process.

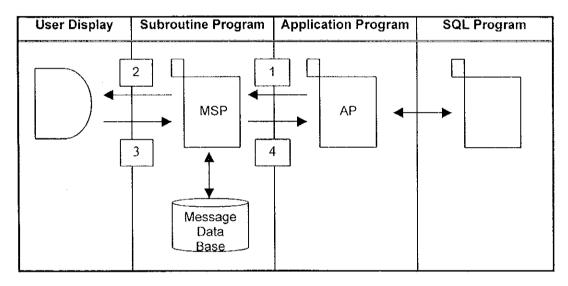


Figure 1.4.1.6-1: Message Output Mechanism



#### 1.4.1.7 Retrieval Result Message

In the case of retrieval process, the following three messages are implemented as shown in the flow chart of Figure 1.4.1.7-1.

- If retrieval result is 0 then E0000002 message will be shown.
- If retrieval result is 1-9, then data will be shown. No message will be shown.
- If retrieval result is 10 99,999, then R0000004 message will be shown.
- If retrieval result is over 99,999, then E0000013 message will be shown.

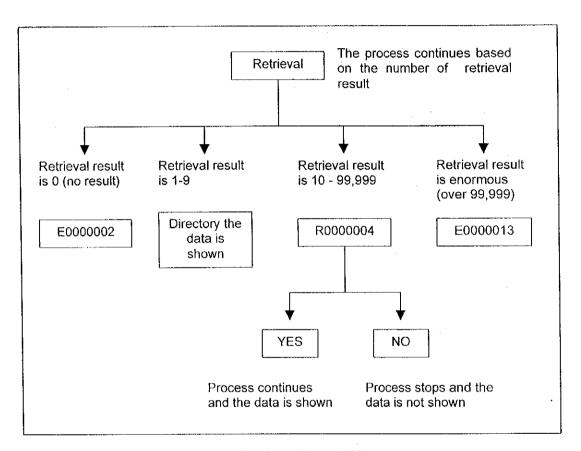


Figure 1.4.1.7-1: Retrieval Result Message

## 1.5 File Standard Format Design

#### 1.5.1 Design Policy and Circumstances

CIS has to exchange some data with CFRS, such as PIB, PEB, Past Record and Blocked Importer. Generally, there are two important points for data exchange between several different systems.

First, each system should be able to use the same specific compatible application to exchange data. For example, if someone sends a document written in MS-Word, the receiver should have the same or compatible system to be able to open and read it. Otherwise, the receiver cannot open and read it.

Secondly, both systems must have the same data type for all the data items to be exchanged. For example: data type of Postal Code in CFRS is determined as 5 digits character type. CIS has to define the same item with the same data type in CFRS in order to handle the Postal Code sent from CFRS.

Central of Automated Data and Information Processing (ADP) and the JICA Study Team have agreed to use archived files made by export function of Oracle for exchanging files between CIS and CFRS. This is because both CIS and CFRS have Oracle products and therefore export function of Oracle can be used by each system and the data types of all items have been defined beforehand. Moreover, exchanging record formats have been defined and both CIS and CFRS have to follow them.

Figure 1.5.1-1 shows data exchanging mechanism.

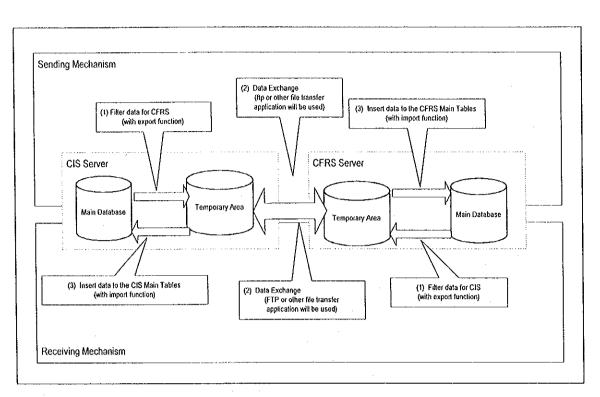


Figure 1.5.1-1: Basic mechanism of File Sending and Receiving between CIS and CFRS

The data exchange mechanism is described as follows:

- 1) In sending mechanism to CFRS:
  - Data for CFRS are filtered from the CIS main tables and stored to temporary area as archived files. To create these, the JICA Study Team has opted to use export function of Oracle.
  - Data exchange between the CIS temporary area and the CFRS temporary area is accomplished with FTP or other application.
  - New or updated data are stored in the CFRS main tables from archived file by import function of Oracle.
- 2) In receiving mechanism from CFRS:
  - Data for CIS are filtered from the CFRS main table and stored to temporary area as archived files. To achieve these, the JICA Study Team has designed to use export function of Oracle.

- Data exchange between the CIS temporary area and the CFRS temporary area is accomplished with ftp or other application.
- New or updated data are stored in the CIS main tables with import function of Oracle.

When import function of Oracle restores data from the archived file, the data and its structure will be restored from the archived files. Therefore, the data structure must be consistent among the CIS database, the CFRS database and exchange files.

The JICA Study Team has investigated the CFRS data structure as receiving file, and also has defined the CIS data structure as sending file.

#### 1.5.2 Received File from CFRS

CIS will gather the following data from the CFRS servers in Service Offices.

- PIB
- PIBT
- PEB
- New/updated importer and exporter profile (NPWP File)
- Currency Exchange Rate Table

The CIS database has been designed with the almost same data structure for PIB, PIBT, PEB and Currency Exchange Rate Table as in CFRS. But, data structure of NPWP File prepared by CFRS for CIS is not entirely the same as data structure of corresponding file prepared by CIS, which is called BASIC INFORMATION. ADP and the JICA Study Team have agreed to exchange NPWP File and BASIC INFORMATION with current structure and then use only the necessary data from the files. Moreover, some attributes have been added to PIB and PEB based on detail design of the CIS database. Therefore, to decide data structure for PIB and PEB, further discussions are needed in development phase.

The file standard format for receiving file is shown in Supplement C.1.

#### 1.5.3 Sending File to CFRS

The following data are created in the CIS operation, which are then distributed to the CFRS servers in each Service Offices.

- · Past Record and Blocked Importer
- NHI

#### BASIC INFORMATION

The CFR database should been designed with the same data structure for NHI, and Past Record and Blocked as in CIS. But, as mention in 1.5.2, data structure of BASIC INFORMATION prepared by CIS for CFRS is not entirely the same as data structure of corresponding file prepared by CFRS, which is called NPWP File. ADP and the JICA Study Team have agreed to exchange BASIC INFORMATION and NPWP File with current structure and then use only the necessary data from the files.

Regarding to length of data items for ID number, there are some differences between CIS's BASIC INFORMATION and CFRS's NPWP file, which transfer data each other.

Since CIS manages both company information and personal information, ID type is not limited to NPWP but including passport number and KTP number. Consequently the number of digits of ID in BASIC INFORMATION is 20 digits. However, NPWP file of CFRS only contains NPWP number, therefore the number of digits of ID is 12 digits.

In order to solve this inconsistency of length of data items for ID, the JICA Study Team designed the file standard format based on company information, that is, the only company data that has NPWP as a ID will be transferred. To exchange personal information, further discussions are needed in development phase.

The file standard format for sending file is shown in Supplement C.2.

## 1.6 Client Common Application Design

Client Common Application is designed for CIS common job processed on client machine. All directorates commonly use this application. The main functions are to initiate transaction and as a gateway to enter another applications.

#### 1.6.1 Initial Transaction

#### 1.6.1.1 Details of Design

When CIS application starts, Title Window is the first window to be displayed and contains items such as User ID and Password.

The User ID and the password that control user access right are issued to positions or sections, not to individuals. For example, new staff will be given a static ID for his position or section that might have been used by another person. One directorate then will have limited access rights to information owned by other directorates. The User ID will be related to directorates and sub directorates. Furthermore, the structure of User ID is shown in Table 1.6.1.2-1 Structure of User ID.

User must then fill in the User ID and Password to validate their rights to access to CIS. CIS security-function will check User ID and Password in the User ID file. Once ID and Password are confirmed, Menu Window will be shown.

The Menu Window is displayed on full screen. Retrieval menu, Registration menu, Update menu, Deletion menu and Tools menu are default menus in Menu Window. But items in those menus are different, depending on User ID. User then can select an application in one menu to open that application as a child window in Menu Window. Several applications can be opened at one time.

To change password, select Change Password in Tools menu. That will open Password Change Window contained Old Password, New Password and Confirm Password. Because the password will be displayed in "\*" character (not in actual character) the item Confirm Password is used to check user password and as user password's mnemonic. If the Old Password, New Password and Confirm Password are filled in correctly, user password is changed by the application. The overall flow of Initial Transaction is shown in Figure 1.6.1.2-1.

### 1.6.1.2 Specification of Processes

As a result of system design (Phase I), the following documents are attached.

G-1 and G-2 of Appendix are referred to understand how to view the diagrams and tables.

Structure of User ID.	Table 1.6.1.2-1
The Flow of Initial Transaction.	Figure 1.6.1.2-1
List of processes.	Table 1.6.1.2-2
Common Window	
User ID, Password Check	
User ID, Password Check Process Diagram	Figure 1.6.1.2-2
User ID, Password Check Process Summary	Table 1.6.1.2-3
Job Menu	
Job Menu Process Diagram	Figure 1.6.1.2-3
Job Menu Process Summary	Table 1.6.1.2-4
Change Password	•
Change Password Process Diagram	Figure 1.6.1.2-4
Change Password Process Summary	Table 1.6.1.2-5
List of Windows	Table 1.6.1.2-6

Furthermore, the specification described below requires thorough investigation concerning the possibility of realization.

• The method of displaying menu bar on top of the screen all the time and starting up more than 2 applications at a time.

Table 1.6.1.2-1: Structure of User ID

Re	egio: ispe	ectorate or nal Office or ction Office.	Sul	directorate. 1 digit				Example	Remarks
Head Office	А	1 digit  Head office Prevention & Investigation	A B C	Intelligence SD	Section for 1digit	Sub section for 1 digit		AAAB01 BAAA02 CAAB02	Password is alphanumeric. Can be more than 6 digits but not less. Must be different from user ID.
	C D Q							·	
Regional Office	R	Regional Office	В С	Kantor Wilyayah IV DJBC Regional office 2	Division for Idigit	Section for Idigit	Sequential No. for 2digits	RAAA01 RAAA02 RAAA03	Password is alphanumeric. Can be more than 6 digits, but not less. Must be different from user ID.
	S	Region of Medan	A B C	Each Inspection office.			Sec	SAAA01 SAAA02 SAAA03	Password is alphanumeric. Can be more than 6 digits but not less.
vice Office	Т	Region of Balai Karimun	A B C	Each Inspection office.	n for 1digit	Sub section for 1 digit			Must be different from user ID.
Service	U	Region of Palembang Jakarta Bandoung	А В С	Each Inspection office.	Section for	Sub section			
	W X Y								



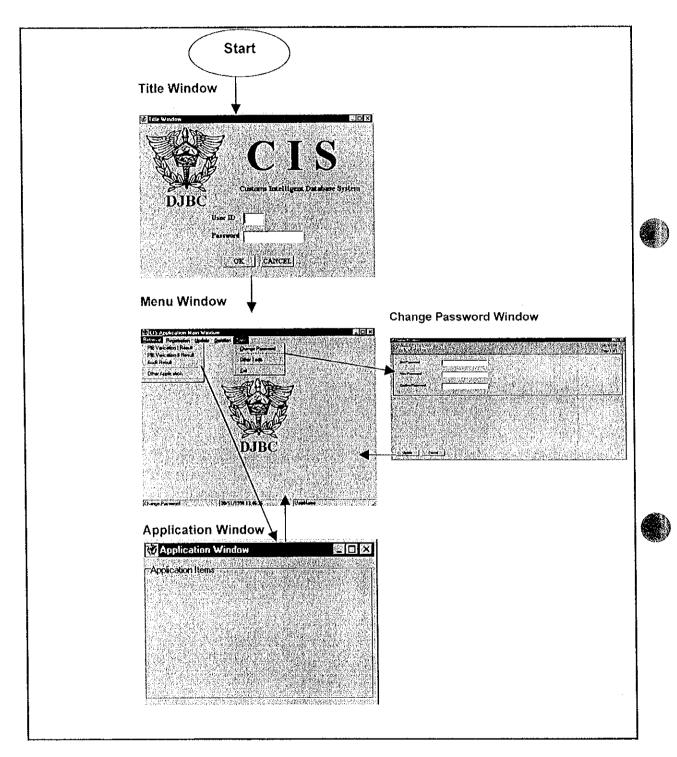


Figure 1.6.1.2-1: The Flow of Initial transaction



Table 1.6.1.2-2: List of Processes

No.	App. Code	Process Name	Process Outline
1	C010	User ID, Password Check	When the application is started, Title Window will be displayed for user to input the user ID and password (input on Client's Title Window). These are used for logging into database.
2	C020	Job Menu	Menu window displays Retrieval, Registration, Update, Deletion and Tools menu (different items in menu for each user category) for user to select appropriate application.
3	C030	Change Password	It is used when changing password is requested.

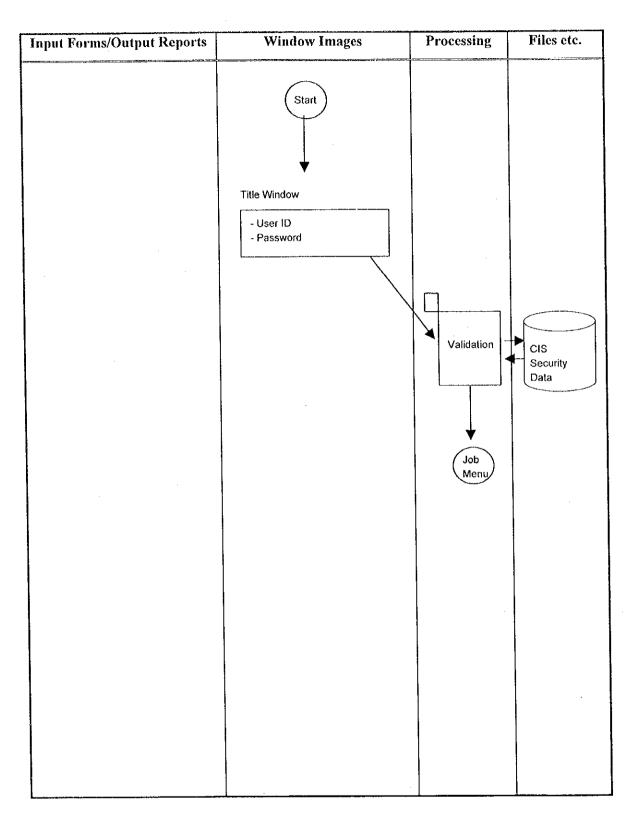


Figure 1.6.1.2-2 : Process Diagram(User ID, Password Check)

Table 1.6.1.2-3: Process Summary (User ID, Password Check)

Notes	*******				•											•••					******			
Process Condition			All Directorate	(inc. Regional	Office and	Service Office).	•																	
Process Procedure			CIS Security (A) Processing Unit	Processed on every log in.	(B) Processing Procedure	(1) Validation	(i) Input	Input User ID and Password.	(ii) Input Check	Check Value of inputted data.	(iii) Login	User ID and Password are valid.	Login CIS Database already	connected.	(iv) Retrieve	Retrieve Office Code, Office	Type, Organization Code, State	Official Position Code and Menu	Code.	(v) Start Job Menu	Transfer Office Code, Office	Type, Organization Code, State	Official Position Code and Menu	Code to Job Menu Process.
Files			<ul> <li>CIS Security</li> </ul>	Data										•									·	
	Output	t0:	Applic-	ation	(Job	Menu)																		
Output	Output Data		Job Menu	- Office Code	- Office Type	- Organization	Code	- State Official	Position Code	- Menu Code														
	Input	from:	CRT	(Client)	·																			
Input	Input Data		Title Window	- User ID	- Password																			
No.			_																					

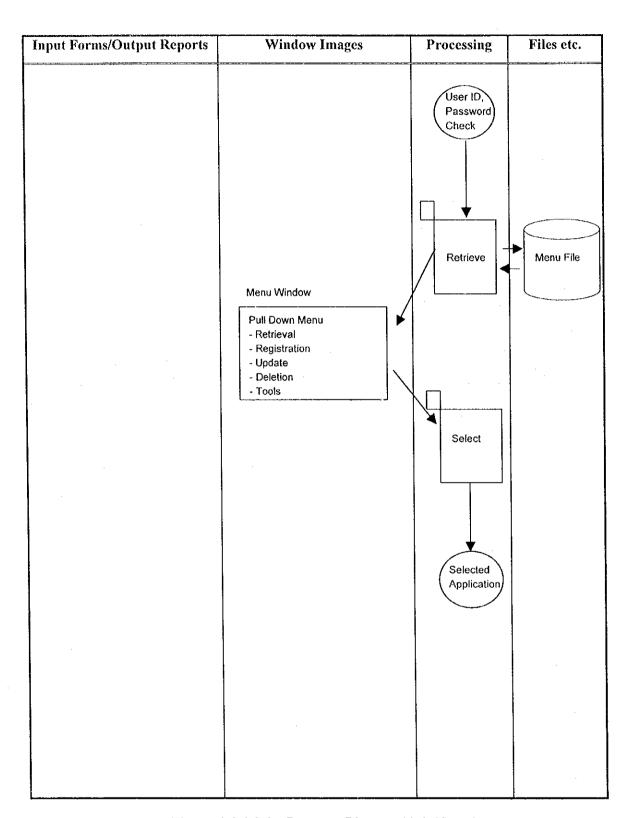


Figure 1.6.1.2-3: Process Diagram(Job Menu)

Table 1.6.1.2-4: Process Summary (Job Menu)

No.	Input		Output		Files	Process Procedure	Process Condition	Notes
	Input Data	Input from:	Output Data	Output to:				
-	User ID, Password Check User Id Office Code Office Type Code State Official Position Code Menu Code	Applicati on (User ID, Password Check)	The Group Applications (Sub Menu) Process Modul ID Sub Menu ID Application Name	CRT (Client)	Menu File	<ul> <li>(A) Processing Unit Processed on every start up of an application.</li> <li>(B) Processing Procedure</li> <li>(1) Retrieval <ul> <li>(i) Retrieve</li> <li>Retrieve The Group Applications</li> <li>(Sub Mernu) from Menu File using Menu Code.</li> <li>(ii) Distribution of Sub Menu Application Name will be distributed to Sub Menu using Process Modul ID.</li> </ul> </li> </ul>	<ul> <li>All Directorate Selection (inc. Regional Office and Service Office).</li> <li>Menu bar must Change be displayed all Password the time.</li> <li>More than one application can be started up simultaneously.</li> <li>The menu window takes</li> </ul>	Selection of application ation contains Change Password process
2	Menu     Window     Process     Modul ID	Client	Selected Application User Id Office Type Office Type Code State Official Position Code	Applic- ation (Selected Applicati on)		(2) Select When Application in Sub Menu is selected, application window will come out and User ID, Office Code Office Type, Organization Code, and State Official Position Code will be transferred to that selected Application.	over whole screen, with the menu bar on top.  The menu bar is always displayed.	

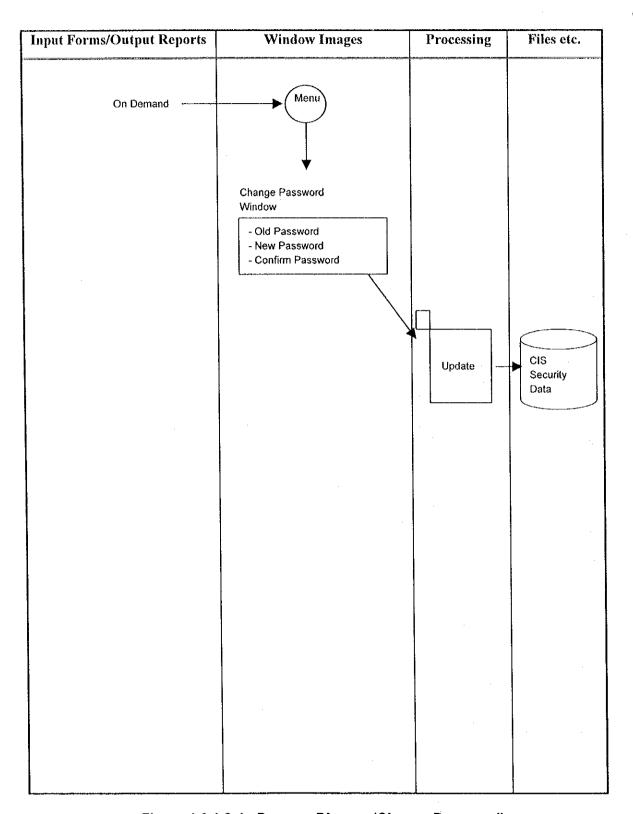


Figure 1.6.1.2-4: Process Diagram(Change Password)

Table 1.6.1.2-5: Process Summary (Change Password)

_
:01
trom:
Irom:

## Table 1.6.1.2-6: List of Windows

No.	Window Code	Window Name			Input/ Output		Window Type	Note
			Input &	Output	Input	Output		
1	WC01010	Title Window			1		Card Pattern	
2	WC02010	Menu Window	<b>V</b>	•			Card Pattern	—
3	WC03010	Change Password Window			<b>√</b>		Card Pattern	—

### 1.6.2 Common job for all the directorates

#### 1.6.2.1 Details of design (phase I)

The circumstances of investigation for jobs targeted for computerization are described below.

These three processes were assigned to the Customs Directorate in the Progress Report (March 1998), because these are related to customs clearance procedure. But, because

- 1) the Customs Directorate controls only the procedure and did not control these objects, such as each PIB, each PEB, each importer, and each exporter; and
- 2) these information are retrieved by all the directorates; these processes are not assigned to any directorate but categorized as client common application.

PIB Retrieval process is a process to retrieve and display each PIB (including PIBT, which will need to be considered further).

PEB Retrieval process is a process to retrieve and display each PEB. PEBT is assumed to be unified with PEB by the cut over of CIS

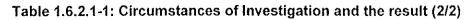
Company/Person Summary Monitor, which was called as Summarized Importer/Exporter Information Monitor in the Progress Report (March 1998), is a process to retrieve and display the summarized information on a company or person that is registered in CIS database with the identity code, such as NPWP, Passport number and KTP (Personal ID Card) number. This process has originally introduced not by the request from DJBC, but by the suggestion of Japanese Customs experts.

The next table shows the changes in processes after the Progress Report as of March, 1998:



Table 1.6.2.1-1: Circumstances of Investigation and the result (1/2)

No.	Process Name	Circumstances of Investigation	Result of Investigation
1	PIB/PEB Retrieval	There were no process to display the list of PIB/PEB.	The List Retrieval window will be used for this purpose also. Though this window is to select a specific PIB/PEB, several important items of PIB/PEB header should be displayed in this list.
2		Importer/Exporter name as a retrieval key would cause the List Retrieval to be too complicated.	Company / Person Summary Retrieval should be used to obtain the ID number of a certain importer or exporter, so the name is not allowed as a retrieval key for this process.
3		P2 requests to retrieve a list of commodity of PIB that have a specific HS.	As this retrieval would take long time or take much disk space, this function will be implemented on the second stage or later.
4	Company/ Person Summary Retrieval	At the beginning, this process was assumed to handle an importer or exporter, because CIS is based on utilization of existing electronic PIB/PEB data as the same as Japanese CIS.	The summarized information on any company or person, which has an Basic Information stored in CIS, can be retrieved through this process, though the main target of this process is still importer or exporter. For this reason, the name of this process is change from "Summarized Importer/Exporter Information Retrieval" to "Company/Person Summary Retrieval."



No.	Process Name	Circumstances of Investigation	Result of Investigation
5		Function to retrieve company/person person information with some keyword, such as part of address, phone number, name is necessary for CIS.	The essence of this function is to find the identity code of the company/person. This function should be used in many situations with CIS, so it should be implemented in this process as the common process for all directorates.
			The substring match is supposed to be used in a very limited situation that demands such feature. As it should be noted that substring match would take very long time, because index, a structure to eliminate time to retrieve, is nearly impossible for substring match.
6		Normalization of key items, such as address, name, would make more effective retrieve (e.g. normalize Jalan and Jl. To Jl.).	This feature is decided as future plan, because normalization of key will introduce much complexity to every management processes, and it is very difficult to design the patterns of normalization within a limited period.
7		Some company have branch offices or factories in a distant place. These distant sites have their own NPWP, if the jurisdiction of Tax Office of the site is different from that of the head office of the company. Therefore, it is difficult to retrieve all the information related to the a certain company with NPWP as the retrieval key.	The sequential part of NPWP, which is the 7-digit part other than Taxation Office code nor check digit, is used as a retrieval key of Company / Person Summary Retrieval. With this retrieval key, a list of companies that have related NPWP will be retrieved.
8		PIB / PEB activities are calculated from the PIB / PEB transferred to CIS. Therefore, their number is based on the timing and condition of transfer.	PIB / PEB activity is used to grasp overview of a company or person, and not treated as an precise statistics.  Basically, PIB that has permitted (SPPB issued) will be transferred. For more precise timing and condition, refer to Volume II subsection 1.7.2 and 1.7.3.

### 1.6.2.2 Specification of processes

As a result of system design (Phase I), the following documents are attached.

G-1 and G-2 of Appendix are referred to understand how to view the diagrams and tables.

List of processes	Table 1.6.2.2-1
Process Structure	Figure 1.6.2.2-1
PIB Retrieval	
Process Diagram	Figure 1.6.2.2-2
Process Summary	Table 1.6.2.2-2
PEB Retrieval	
Process Diagram	Figure 1.6.2.2-3
Process Summary	Table 1.6.2.2-3
Company/Person Summary Retrieval	
Process Diagram	Figure 1.6.2.2-4
Process Summary	Table 1.6.2.2-4
List of Windows	Table 1.6.2.2-5

List of Reports and List of Information Interchange File are omitted, as there is no report or information interchange file in these processes.



Table 1.6.2.2-1 List of Processes

No.	App. Code	Process Name	Process Outline
1	C044	PIB Retrieval	To display information on PIB.
2	C054	PEB Retrieval	To display information on PEB.
3	C064	Company/Person Summary Retrieval	To display summarized information on company/person registered in CIS Basic information, such as company/person customs clearance information, violation information and audit information.

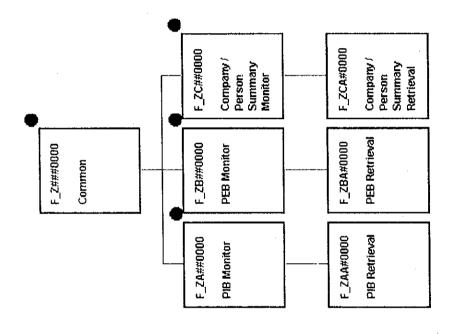


Figure 1.6.2.2-1: Process Structure

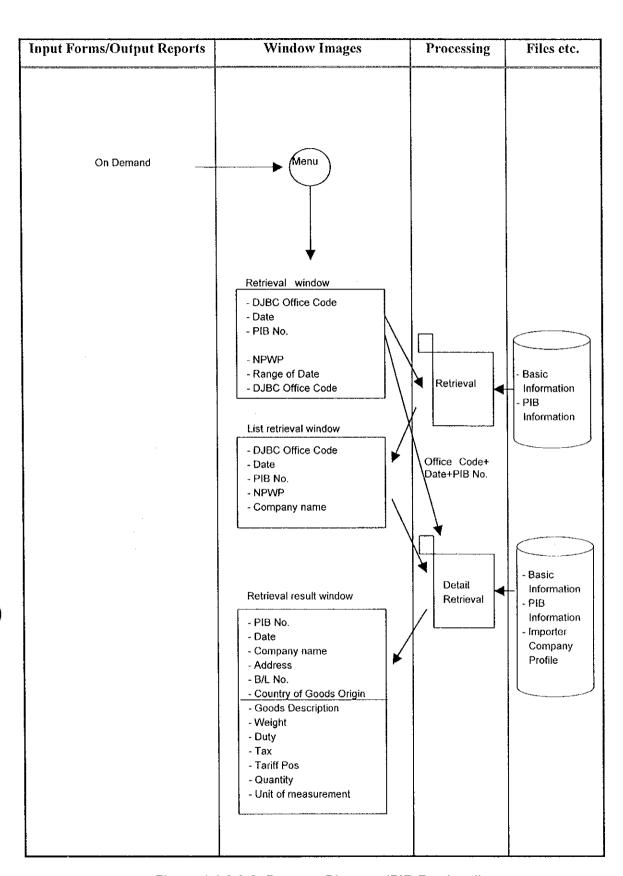


Figure 1.6.2.2-2: Process Diagram (PIB Retrieval)

Table 1.6.2.2-2: Process Summary (PIB Retrieval)

Notes		
Process Condition 1		All Directorates. No. of PIB must be exist in PIB Information. NPWP must be exist in the Basic Information. Data field input must be valid.
Process Procedure		<ul> <li>(A) Processing Unit Processed on every PIB when required.</li> <li>(B) Processing Procedure (I) Retrieval of PIB No. Retrieval Key: • Office Code + Date + PIB No. • NPWP When the inputted retrieval key is unique, the matched PIB detail according to the PIB No. will be displayed in the retrieval result window.</li> <li>(2) List retrieval for PIB Information. When the retrieval key is not unique, list of matched PIB will be displayed in the list retrieval window.</li> <li>(3) Retrieval of PIB Information When PIB No. is selected, PIB Information according to the PIB No. will be displayed in the retrieval result window.</li> </ul>
Files		Basic Information PIB Information PIB Information Information PIB Information PIB Profile
	Output to:	CRT (Client)
Output	Output Data	List retrieval     window     NPWP     Company     Name     P1B No.     Retrieval     result window     Basic     information     P1B     information
	Input from:	CRT (Client)
Input	Input Data	Retrieval     window     Office Code     Date     NPWP     PIB No.     List retrieval     window     NPWP     Company     Name     PIB No.     PIB No.
No.		-   N

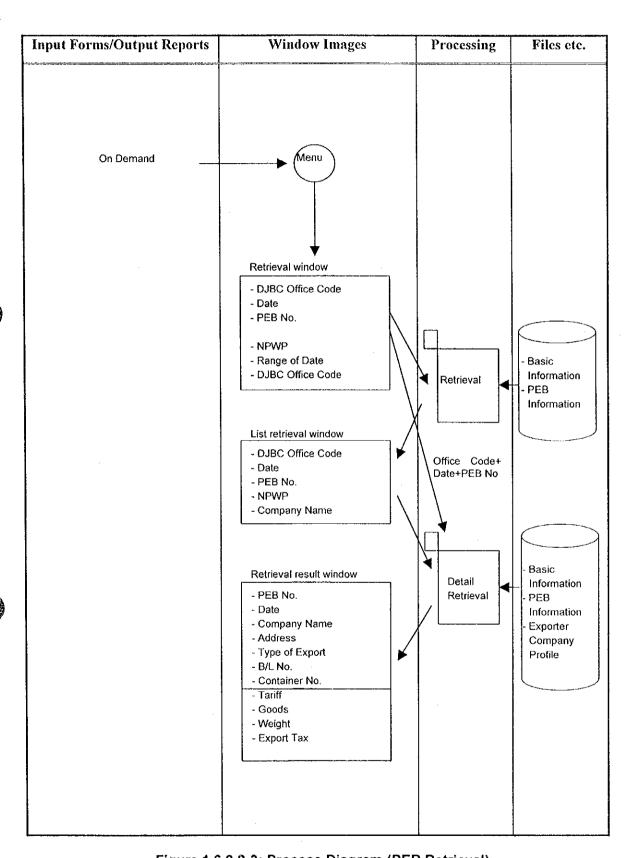


Figure 1.6.2.2-3: Process Diagram (PEB Retrieval)

Table 1.6.2.2-3: Process Summary (PEB Retrieval)

Notes		
Process Condition		All Directorates. PEB No. must be exist in PEB Information. NPWP must exist in the Basic Information. Data field input must be valid.
-		P P P P P P P P P P P P P P P P P P P
Process Procedure		<ul> <li>(A) Processing Unit Processed on every PEB when required.</li> <li>(B) Processing Procedure (I) Retrieval Key: • Office Code + Date + PIB No. • NPWP When the inputted retrieval key is unique, matched PEB detail according the PEB No. will be displayed in the retrieval list window.</li> <li>(2) List retrieval for PEB Information. When retrieval key are not unique, list of PEB will be displayed in the list retrieval window.</li> <li>(3) Retrieval of PEB Information When PEB No. is selected, PEB Information according the PEB No. will be displayed in the retrieval result window.</li> </ul>
Files		Basic Information PEB Information PEB Information PEB Company Profile
	Ħ	
	Output to:	CRT (Client)
Output	Output Data	List retrieval     window     NPWP     Company     Name     PEB No.     Retrieval     result window     Company.     Basic     Information     PEB     information
	Input from:	CRT (Client)
Input	Input Data	Retrieval window Office Code Date NPWP PEB No. Company Name PEB No.
No.	<u>.                                    </u>	- 2
Z		

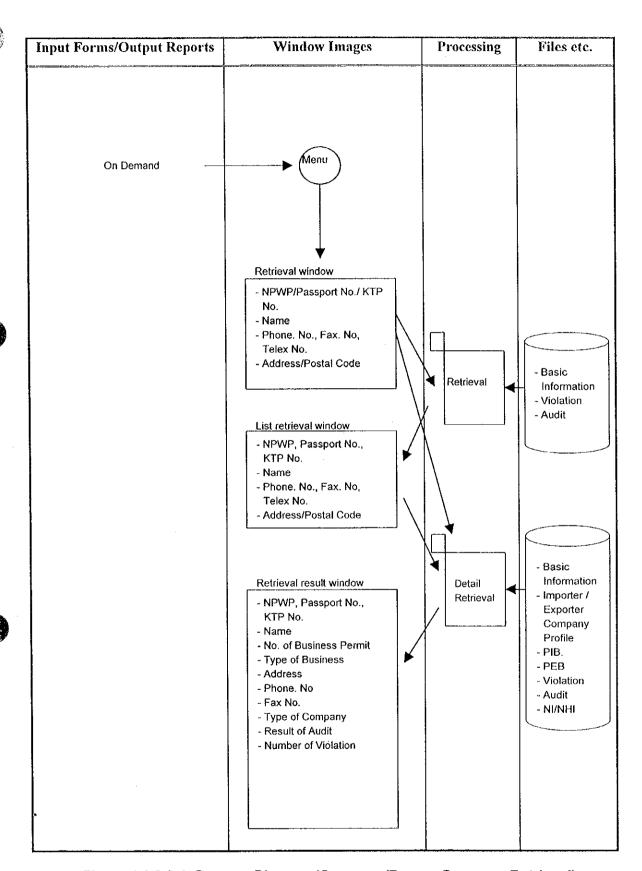
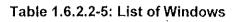


Figure 1.6.2.2-4: Process Diagram (Company/Person Summary Retrieval)

Table 1.6.2.2-4: Process Summary (Company/Person Summary Retrieval)

Notes		Partial string match will take very long time to retrieve, so such use should be limited only to inevitable cases.	
Process Condition		Ali Directorates. Identity Number or other retrieval keys, such as name, phone number, must exist in the Basic Information. Inputted data field must be valid.	
		• • •	
Process Procedure		(A) Processing Unit Processed on every Company/Person when required (B) Processing Procedure (I) Retrieval of NPWP and Basic Information Retrieval Key:  • NPWP, Passport No., KTP No.  • Item in Basic Information When Retrieval Key is unique, Summary Information on that Company/person will be displayed. (2) List Retrieval for Company/Person Information. When retrieval key is not unique, list of matched companies and persons information will be displayed. (3) Retrieval of Company/Person Summary. When a Company/Person	Summarized Information of Company/Person will be displayed.
Files		Basic Information Violation Audit Basic Information Importer/Exporter Company Profile PIB PEB Violation Audit	
	Output to:	CRT (Client)	
Output	Output Data	List Retrieval Window  "NPWP/Pass- port No./KTP No. "Name "Phone No "Address/ Postal Code Result Window Basic Information "PIB/PEB "Violation "Audit Information	
	Input	CRT (Client)  CRT (Client)	
Input	Input Data	Retrieval Window NPWP/Pass- port No./KTP No. Name Nindow Notatal Code List Retrieval Window No. NPWP/Pass- port No./KTP No. No. Phone No. Address/ Postal Code Phone No.	
-	<u> </u>		



No.	Window Code			Input/ Output		Window Type	Note
			Input & Output	Input	Output		·
l	WC044010	PIB Retrieval (Retrieval Window)		1		Card Pattern	
2	WC044020	PIB Retrieval (List Retrieval Window)	1			List Pattern	
3	WC044030	PIB Retrieval (Retrieval Result Window 1)			1	Slip Pattern	<del></del>
4	WC044040	PIB Retrieval (Retrieval Result Window 2)			1	Card Pattern	
5	WC054010	PEB Retrieval (Retrieval Window)	·	1		Card Pattern	
6	WC054020	PEB Retrieval (List Retrieval Window)	1			List Pattern	——————————————————————————————————————
7	WC054030	PEB Retrieval (Retrieval Result Window 1)			1	Slip Pattern	<del>-</del>
8	WC054040	PEB Retrieval (Retrieval Result Window 2)			1	Card Pattern	
9	WC064010	Company/Person Summary Retrieval (Retrieval Window)		1		Card Pattern	
10	WC064020	Company/Person Summary Retrieval (List Retrieval Window)	1			List Pattern	. —
11	WC064030	Company/Person Summary Retrieval (Retrieval Result Window)				Card Pattern	

# 1.7 Server Common Application Design

# 1.7.1 ID management

## 1.7.1.1 Design policy and circumstances

Each user of CIS has to have his/her own ID and password to access the CIS database. These information are required by the CIS initial screen in CIS Applications. CIS can certify the person with ID and password whether the person accessing CIS is authorized.

In this sub-subsection, the basic model for ID management function is described, such as how to manage ID and password and how to certify ID and password. Regarding security of CIS Applications, refer to 3.3.6.

### 1.7.1.2 Security design

There are many methods to have a tight security for database against intrusion attempts. Using ID and password is one of methods.

Each user of CIS can access the CIS database with his/her own ID and password. ID defines the privilege, after the user's authentication.

The JICA Study Team has designed to use security system of Oracle for the CIS authentication system. All of IDs and passwords are stored and managed by Oracle. Each ID must have a role, which is essentially a get of privileges in Oracle. "Role" in Oracle can provide the same privileges to many IDs who have the same roles.

In the security of CIS, the roles are designed in accordance with task groups of the CIS users. There are four groups of the CIS users based on task, such as:

- The CIS database administrators who own all database objects in the CIS database.
- The CIS maintenance operators, who are responsible to do the CIS database maintenance operation, such as: backing up and recovering data, sending and retrieving data.
- The CIS users who can run the CIS applications.
- The EUC users who can access several data directly to the CIS database

Table 1.7.1.2-1: CIS sample role design

User Group	Name of Role	Typical User	Privileges
CIS database administrators	Data Base Administration	CIS database Administrator	Create, insert, update, retrieve, and delete All database objects
CIS maintenance operators	CFRS Connectivity Operation	Operator of CIS in conection between CIS and CFRS	Insert, update, retrieve, and delete specific database objects related to sending and retrieving mechanism
CIS users	(Each directorate) management	CIS manager in each Directorate	Insert, update, retrieve, and delete specific database objects related to each directorate management
	(Each directorate) operation	CIS operator in each directorate	Insert, update, retrieve and delete specific database objects related to each directorate operation
EUC users	EUC Usage	EUC user that related to the CIS database	Retrieve specific database objects

In this sub-subsection, The JICA Study Team has focused on the CIS users. Actually, the CIS user group has many roles, which correspond to:

- DJBC office types, such as head office, regional office, and service office
- · DJBC organizations, such as directorates, sub-directorates, and divisions
- Manager indication, such as; manager and end-users.

### 1.7.1.3 Mechanism of ID management

The CIS ID management consists of three procedures.

Firstly, system administrator of CIS has to register, update, delete and retrieve user of CIS. The JICA Study Team has designed several processes for helping these operations. These processes have several screen forms, which run in client to be operated.

Secondly, the CIS ID management process in client requires the ID and its password for user of CIS. This process accesses to the CIS server in order to compare ID and password input on the window with registered ID and password to make authentication. Security system of Oracle handles this authentication process in the CIS server (see 1.6).

Thirdly, after completing authentication, the CIS application in client can retrieve detail information of user who inputs his own ID and password. The CIS ID management process in client can control screen flow by detail information of user of CIS (see 1.6).

Figure 1.7.1.3-1 shows this mechanism.

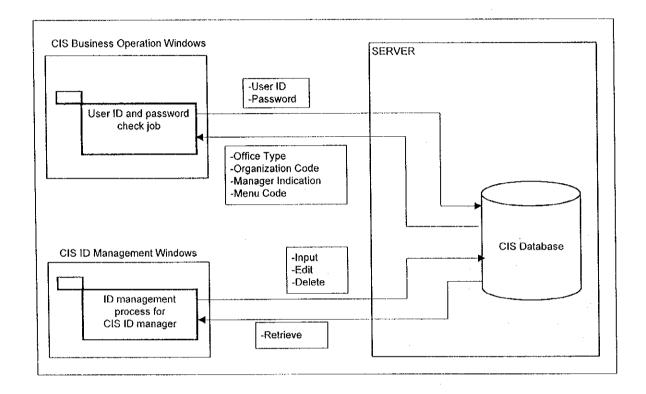


Figure 1.7.1.3-1: The CIS ID management

All of security data, such as ID, password, and role are stored in Oracle database in the CIS server. Several data dictionaries in Oracle are used in this design, such as:

- DBA USERS table is used to register all user ID and password of Oracle users.
- DBA\_ROLES table is used to register all roles (group of privileges) that are defined in database.
- DBA ROLE PRIVS table is used to register connectivity between users and roles.

These tables are read only, because these are system tables, which can be updated automatically by several SQL commands. Each time Oracle administrator adds new user, roles, or connectivity between users and roles, data are automatically added in the tables. To

manage ID in CIS, additional customized tables are needed to determine and manage privilege for each user. The tables are:

- DETOROL table is used to put additional information for role, such as:
  - Office Type (Head Office, Regional Office, Service Office)
  - Organization Code (code of organization position in DJBC)
  - Manager Indication (manager, user)
  - Menu Code (code of menu for the role)
- DETOUSE table is used to put additional information for user, such as:
  - Office Code (code of DJBC office where the user exists)
- DJBCOFFICE table is used as DJBC office reference. The contents of the table are:
  - □ Office Code (code of DJBC office)
  - Office Name (name of DJBC office)
  - Office Description (detail description of DJBC office)
  - Office Type (Head Office, Regional Office, Service Office)

Based on the tables and the data dictionaries above, the JICA Study Team has designed several new views as security data, which consist of DBA0ROL (view from DBA\_ROLES and DET0ROL), DBA0USE (view from DBA\_USERS and DET0USE), and DBA0PRI (view from DBA\_ROLE PRIVS). Data structure for security data is shown in Figure 1.7.1.3-2.

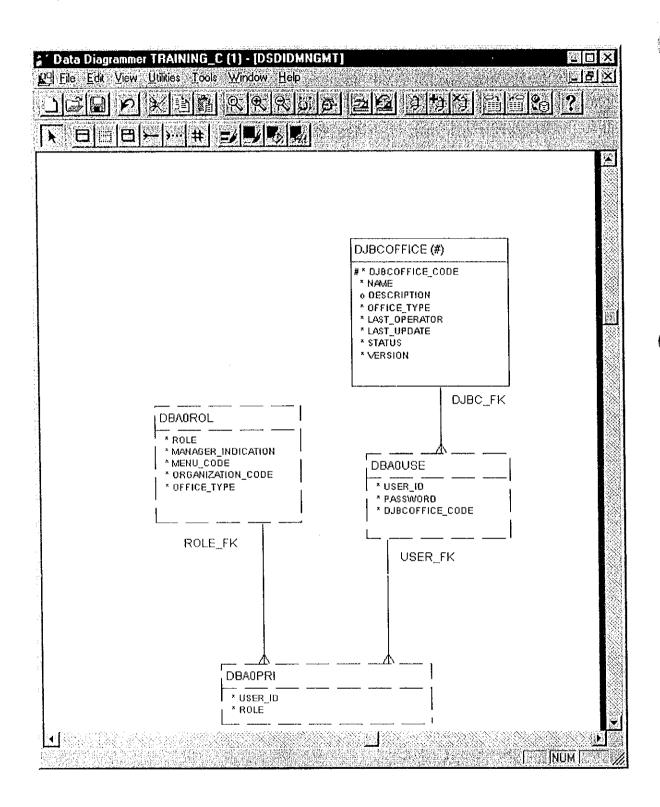


Figure 1.7.1.3-2: Tables and Views of the CIS Security Data

# 1.7.1.4 ID management registration process

Figure 1.7.1.8-1 and Table 1.7.1.8-2 shows the outline of ID management registration Process. As a result of System Design, the process is designed as below:

### Process procedure

## 1) Registration of ID management

## i) Input

Read data from Registration Window. Table 1.7.1.8-7 shows details of data items on the window.

### ii) Input Check

Check if all mandatory items are inputted. Then check value of inputted data following Table 1.7.1.8-12.

### iii) Code Retrieval

Retrieve data from tables by using the inputted codes. Edit and display the retrieved data into data fields corresponding to its code on the window. Table 1.7.1.4-1 shows list and location of codes to be used.

Table 1.7.1.4-1: List of codes

Code	Location of Table	Note
DJBCOFFICE	Server	Office Code, Office Name, Office Type
DBA0ROL	Server	Role, Organization Code, Office Type, Manager Indication, Menu Code

### iv) Confirmation

Display a response-requiring message. (Message ID;R0000001)

## v) Registration

Execute some sort of Oracle commands:

- Create user [user id] identified by [password]
- grant [role] to [user\_id]
- insert into DETOUSE (user\_id,djbcoffice\_code)

values ([user id], [office code])

These commands register user in Oracle database, give the role permissions for that user and insert the user detail into a user detail table.

## vi)Output

Display a normal message. (Message ID;N0000002)

- Window/Report Design
   See Figure 1.7.1.8-5.
- Error Procedure

Display an error message in Table 1.7.1.4-2.

Table 1.7.1.4-2: Error Procedure

Case	Error Contents	Message ID	Note
1)-ii)	An error is detected at Input Check.	See Table 1.7.1.8-12	
1)-iii)	SQL returned an error code.	E0000001	Fill in the blank part of the message text with the error code.
1)-v)	The record to be registered already exists.	E0000003	

#### Restriction

- 1) The operator of ID management has to fill the office code before the role.
- 2) The operator of ID management Registration has to have permissions:
  - To create user
  - To give an access permission to all roles in a database.

#### Note

- □ For details of each message, see Volume II 1.4.
- □ For each User ID, It can only have one Role.

## 1.7.1.5 ID management update process

Figure 1.7.1.8-2 and Table 1.7.1.8-3 show the outline of ID management update process. As a result of System Design, the process is designed as below:

- Process procedure
  - 1) Retrieval of ID management
    - i) Input

Read data from Retrieval Window. Table 1.7.1.8-10 shows details of data items on the window.

ii) Input Check

Check value of inputted data following Table 1.7.1.8-13.

## iii) Retrieval

Retrieve data from the database and code tables. Table 1.7.1.5-1 shows list and location of codes to be used.

Table 1.7.1.5-1: List of codes

Code	Location of Table	Note
DJBCOFFICE	Server	Office Code, Office Name, Office Type
DBA0ROL	Server	Role, Organization Code, Office Type, Manager Indication, Menu Code

### iv) Output

Edit retrieved data and display Update Window. Table 1.7.1.8-8 shows details of data items on the window.

## 2) Update of ID management

i) Input

Read data from Update Window.

ii) Input Check

Check if all mandatory items are inputted. Then check value of inputted data following Table 1.7.1.8-14.

## iii)Code Retrieval

Retrieve data from tables by using the inputted codes. Edit and display the retrieved data into data fields corresponding to its code on the window. Table 1.7.1.5-1 shows list and location of codes to be used.

# iv) Confirmation

Display a response-requiring message. (Message 1D;R0000002)

### v) Update

If operator has changed the password, execute an Oracle command:

alter user [user\_id] identified by [password]

If operator has changed the role for the user id, execute Oracle commands:

- revoke [old role] from [user id]
- grant [new role] to [user id]

If operator has changed the office code for the user id, execute Oracle command:

update det0use set djbcoffice\_code = [djbcofffice\_code]

where user 
$$id = [user id]$$

These commands automatically alter data into the database and alter the user detail into a user detail table

## vi) Output

Display a normal message. (Message ID;N0000003)

# • Window/Report Design

See Figure 1.7.1.8-6 and 1.7.1.8-7.

## • Error Procedure

Display an error message following Table 1.7.1.5-2.

Table 1.7.1.5-2: Error Procedure

Case	Error Contents	Message ID	Note
1)-ii),	An error is detected at Input Check.	See Table	
2)-ii)		1.7.1.8-13 and	
		1.7.1.8-14	
1)-iii),	SQL returned an error code.	E0000001	Fill in the blank part of
2)-iii),			the message text with
2)-v)			the error code.
1-iii),	The code to be retrieved at Code	E0000008	
2)-iii)	Retrieval does not exist in the code table.		
1)-iii)	The record to be updated does not exist.	E0000002	
2)-ii)	There are one or more mandatory items which have not been inputted.	E0000007	

### • Restriction

- 1) The operator of ID management has to fill the office code before the role.
- 2) The operator of ID management Update has to have permissions:
  - To change user password
  - To give an access permission to all roles in a database.

### Note

For details of each message, see Volume II 1.4.

# 1.7.1.6 ID management deletion process

Figure 1.7.1.8-3 and Table 1.7.1.8-4 show the outline of ID Management Deletion Process. As a result of System Design, the process is designed as below:

## · Process procedure

## 1) Retrieval of ID management

### i) Input

Read data from Retrieval Window. Table 1.7.1.8-10 shows details of data items on the window.

## ii) Input Check

Check value of inputted data following Table 1.7.1.8-13.

### iii) Retrieval

Retrieve data from the database and code tables. Table 1.7.1.6-1 shows list and location of codes to be used.

Table 1.7.1.6-1: List of codes

Code	Location of Table	Note
DJBCOFFICE	Server	Office Code, Office Name, Office Type
DBA0ROL	Server	Role, Organization Code, Office Type, Manager Indication, Menu Code

### iv) Output

Edit retrieved data and display Deletion Window. Table 1.7.1.8-9 shows details of data items on the window.

## 2) Deletion of ID management

### i) Confirmation

Display a response-requiring message. (Message ID;R0000003)

### ii) Deletion

Executing Oracle commands:

## □ Drop user [user\_id] cascade

These commands drop user in Oracle database and automatically drop the role permissions for that user. These commands automatically delete the data from the database.

Delete from det0use where user\_id = [user\_id]

These commands delete user detail information from user detail table

## iii) Output

Display a normal message. (Message 1D;N0000004)

## Window/Report Design

See Figure 1.7.1.8-8 and 1.7.1.8-9.

#### · Error Procedure

Display an error message following Table 1.7.1.6-2.

Table 1.7.1.6-2: Error Procedure

Case	Error Contents	Message ID	Note
1)-ii)	An error is detected at Input Check.	See Table 1.7.1.8-13	
1)-iii), 2)-ii)	SQL returned an error code.	E0000001	Fill in the blank part of the message text with the error code.
1)-iii)	The record to be deleted does not exist.	E0000002	
1)-iii)	The code to be retrieved at Code Retrieval does not exist in the code table.	<del></del>	Ignore the error and continue the process.

## Restriction

The operator of ID Management Deletion has to have permissions:

- □ To drop CIS database user
- Note
  - □ For details of each message, see Volume II 1.4.

## 1.7.1.7 ID management retrieval process

Figure 1.7.1.8-4 and Table 1.7.1.8-5 show the outline of ID Management Retrieval Process. As a result of System Design, the process is designed as below:

- Process procedure
  - 1) Retrieval of ID management
    - i) Input

Read data from Retrieval Window. Table 1.7.1.8-10 shows details of data items on the window.

# ii) Input Check

Check value of inputted data following Table 1.7.1.8-13

## iii) Output of Retrieval Result Window

When ID number is inputted on Retrieval Window, retrieve data and display on Retrieval Result Window. Table 1.7.1.8-11 shows details of data items on the window.

# Window/Report Design

See Figure 1.7.1.8-10, 1.7.1.8-11.

## • Error Procedure

Display an error message following Table 1.7.1.7-1.

Table 1.7.1.7-1: Error Procedure

Case	Error Contents	Message ID	Note
1)-ii)	An error is detected at Input Check.	See Table 1.7.1.8-13	<del>-</del>
1)-iii)	SQL returned an error code.	E0000001	Fill in the blank part of the message text with the error code.
l)-iii)	The record to be retrieved does not exist.	E0000002	_

## • Restriction

None

#### Note

For details of each message, see Volume II 1.4.

## 1.7.1.8 Specification of processes

As a result of system design (Phase I), the following documents are attached.

Update Process Diagram Figure 1.7.1.8-2
Update Process Summary
Deletion Process Diagram
Deletion Process Summary
Retrieval Process Diagram
Retrieval Process Summary
List of WindowsTable 1.7.1.8-6
Also, as a result of system design (Phase II), the following documents are attached.
Window Design for ID Management Registration (Registration Window) Figure 1.7.1.8-5
Window Design for ID Management Update (Retrieval Window) Figure 1.7.1.8-6
Window Design for ID Management Update (Update Window) Figure 1.7.1.8-7
Window Design for ID Management Deletion (Retrieval Window) Figure 1.7.1.8-8
Window Design for ID Management Deletion (Deletion Window) Figure 1.7.1.8-9
Window Design for ID Management Retrieval (Retrieval Window) Figure 1.7.1.8-10
Window Design for ID Management Retrieval (Retrieval Result Window) Figure 1.7.1.8-11
List of Items (ID Management: Registration Window)
List of Items (ID Management: Update Window)
List of Items (ID Management: Delete Window)
List of Items (ID Management: Retrieval Window)
List of Items (ID Management: Retrieval Result Window)
Input Check List (ID Management: Registration Window)
Input Check List (ID Management: Retrieval Window)Table 1.7.1.8-13
Input Check List (ID Management: Update Window)



No.	App. Code	Process Name	Process Outline
1	S011	ID management registration	Register new user in CIS.
2	S012	ID management update	Update information of registored user in CIS.
3	S013	ID management deletion	Delete registored user from CIS.
4	S014	ID management retrieval	Retrieve registered CIS user.

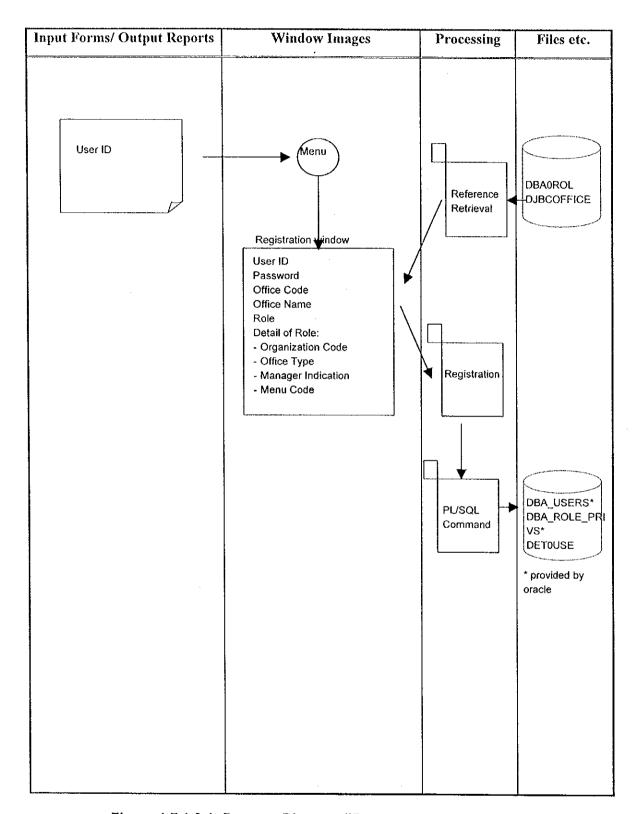


Figure 1.7.1.8-1: Process Diagram (ID management registration)

Table 1.7.1.8-2: Process Summary (ID management registration)

No.	Input		Output		Files	Process Procedure	Process Condition	Notes
	Input Data	Input	Output Data	Output				
		from:		to:				
	Registration	CRT	-	1	• DBA0ROL	(A) Processing Unit	<ul> <li>Central of</li> </ul>	1
	Window	(Client)			DJBCOFFICE	Processed on every new user.	Automated data	
	- User ID	•			OBA USEKS	• UBA USEKS (B) Processing Procedure	and Information	
	- Password					(1) Get Role reference from	Processing has to	
	- Office Code				• DETOUSE	DBA0ROL.	manage.	
	- Office Name					(2) Get Office reference from		
	- Role					DJBCOFFICE.		
	- Detail of role					(3) Registration of a new user		<del></del>
	- Organiza-	•				When User ID is issued by the		****
	tion Code					Intelligence Sub Directorate, user		
	- Office Type					data is inputted into new user		
	- Manager					registration window, register user		
	Indication	·				and role selected by user with		
	- Menu Code					oracle functions (PL/SQL Function)		
						and insert detail user information		
						into DET0USE.		

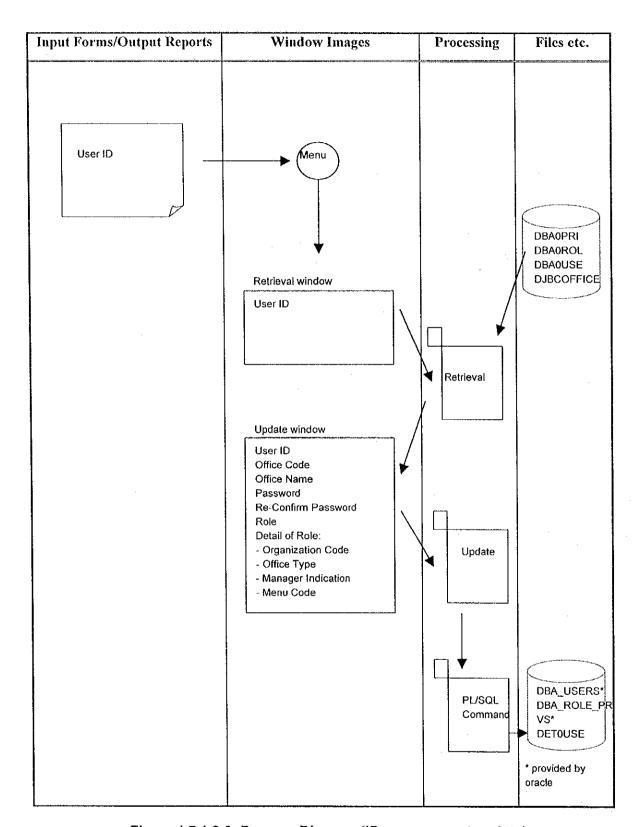


Figure 1.7.1.8-2: Process Diagram (ID management update)

Table 1.7.1.8-3: Process Summary (ID management update)

Notes		1	
Process Condition		Central of     Automated data     and Information     Processing has     to manage.	
Process Procedure		<ul> <li>(A) Processing Unit Processed on update user.</li> <li>(B) Processing Procedure</li> <li>(1) Retrieval of user information. When User ID is inputted, the user information will be retrieved.</li> <li>(2) Get Role reference from DBA0ROL.</li> <li>(3) Get Office reference from DJBCOFFICE.</li> <li>(4) Update user information. When user information is updated into user update window, alter user and role with oracle functions and alter detail user information in DETOUSE.</li> </ul>	
Files		CRT •DBA0PRI (Client) •DBA0ROL •DBA0USE (DJBCOFFICE •DJBCOFFICE •DBA_ROLE_PR IVS •DBA_ROLE_PR IVS •DET0USE	
	Output to:	CRT (Client)	
Output	Output Data	Update Window  User ID  Office Code  Role  Detail of role  Office Type  Office Type  Manager  Indication  Menu Code	
	Input from:	CRT (Client) CRT (Client)	
Input	Input Data	1 Retrieval Window  User ID  Update Window  User ID  Office Code  Office Name  Password  Re-confirm	- Role - Detail of role - Organization Code - Office Type - Manager Indication - Menu Code
No.		7	7.1104

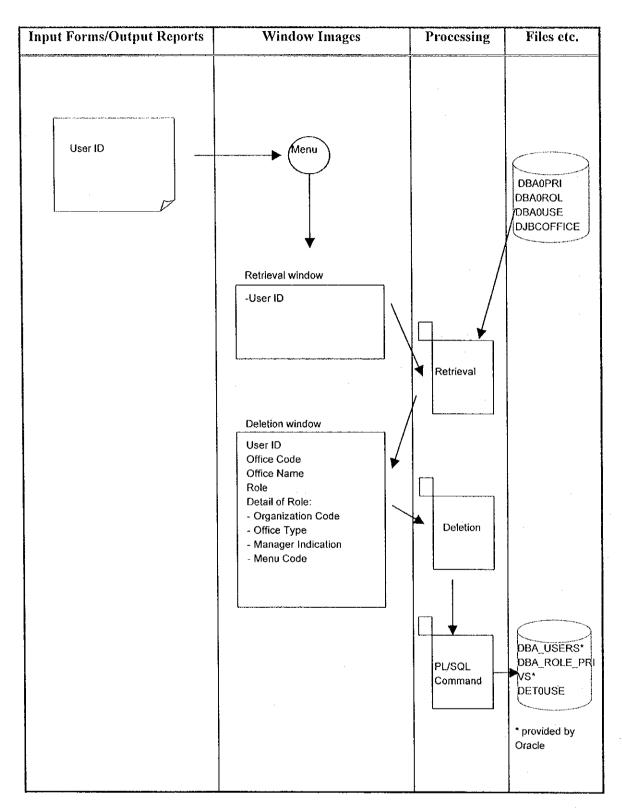


Figure 1.7.1.8-3: Process Diagram (ID management deletion)

Table 1.7.1.8-4: Process Summary (ID management deletion)

Input Data         Input Input Data         Output Data         Files         Process Procedure         Process Condition           Input Data         Input Input Data         Output Data
Input         Output Data from:         Output Data to:         Files           Data         Input from:         to:         CRT         DBA0PRI         (A)           CRT         • Deletion         CRT         • DBA0ROL         (A)           CRT         • Deletion         CRT         • DBA0ROL         (A)           ID         • User ID         • DBA0USE         (B)           • Office Code         • Office Name         • DJBCOFFICE         (1)           • Detail of role         • Detail of role         - Organiza-         tion Code         (2)           • Lion Code         - Office Type         - Office Type         - Office Type         - Office Type           • Manager         - Manager         - Manager         - Manager         - Manager
Input         Output Data         Output           Data         from:         to:           CRT         • Deletion         CRT           CRT         • Deletion         CRT           CRT         • User ID         Client)           DD         • Office Code         Client)           • Office Name         • Role         - Office Name           • Detail of role         - Office Type           • Office Type         - Office Type           • Manager         - Manager
Input         Output Data         Output           Data         from:         to:           CRT         • Deletion         CRT           CRT         • User ID         CRT           D         • Office Code         Client)           B         • Office Name         CRT           C         - Office Name         Client)           C         - Office Type         Chion Code
Data Input O from:  CRT • De CRT will Will Will Will Will Will Will Will
Data Data
No.  I • Reti

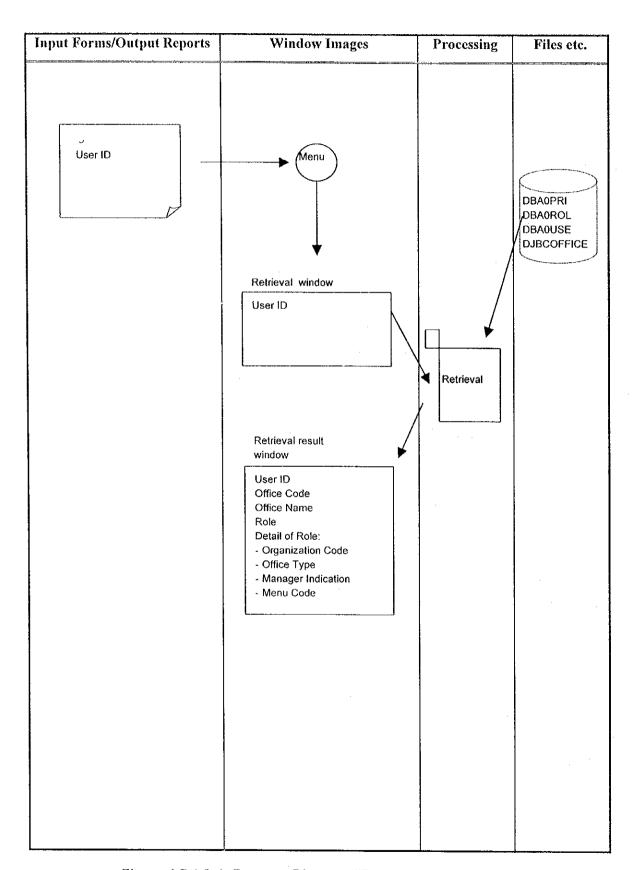


Figure 1.7.1.8-4: Process Diagram (ID management retrieval)

Table 1.7.1.8-5: Process Summary (ID management retrieval)

ġ Z	Input		Output		Files	Process Procedure	Process Condition Notes	Notes
	Input Data	Input	Output Data	Output				
		from:		to:				
	Retrieval	CRT	CRT   • Retrieval Result	CRT	CRT • DBA0PRI	(A) Processing Unit	<ul> <li>Central of</li> </ul>	1
	Window	(Client)	(Client) Window	(Client)	(Client) • DBA0ROL	Processed on user information.	Automated data	
	□ User ID	,	□ User ID		<ul><li>DBA0USE</li></ul>	(B) Processing Procedure	and Information	
			- Office Code		<ul> <li>DJBCOFFICE</li> </ul>	(1) Retrieval of user information.	Processing has to	
			o Office Name			When User ID is inputted, the user	manage.	
			- Role			information will be retrieved to user		
			- Detail of			retrieval result window.		
			Role:					
			- Organiza-					
			tion Code					
			- Office Type					
			- Manager					
			Indication					
			- Menu Code					

# Table 1.7.1.8-6: List of Windows

No.	Window Code	Window Name		Input/ Output		Window Type	Note	
			Input &	Output	Input	Output		·
ì	WS011001	ID management registration Window	1				Card Pattern	
2	WS012001	ID management update Window	1				Card Pattern	<del></del>
3	WS013001	ID management deletion Window	1				Card Pattern	<del></del>
4	WS014001	ID management retrieval Window			1		Card Pattern	
5	WS014002	ID management Retrieval Result Window				1	Card Pattern	<u> </u>

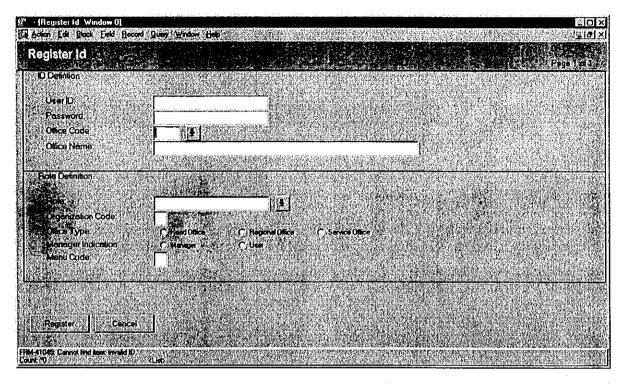


Figure 1.7.1.8-5: Window Design for ID Management Registration (Registration Window)

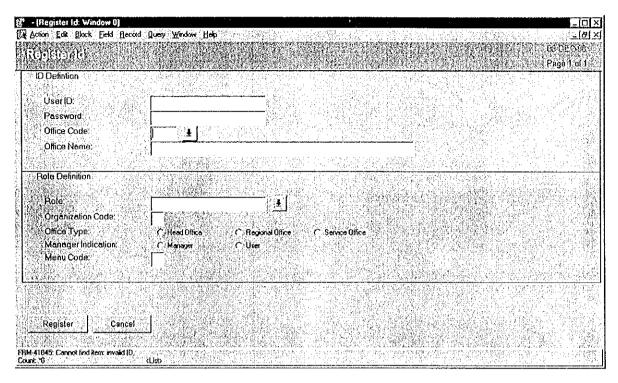


Figure 1.7.1.8-5: Window Design for ID Management Registration (Registration Window)

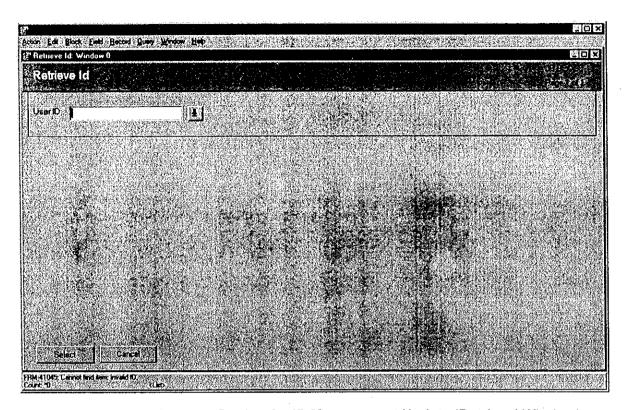


Figure 1.7.1.8-6: Window Design for ID Management Update (Retrieval Window)



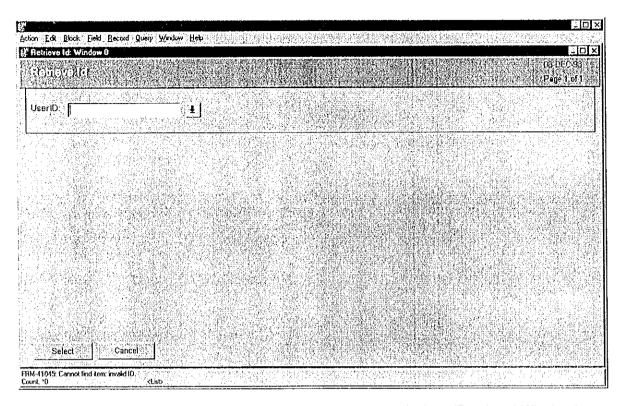


Figure 1.7.1.8-6: Window Design for ID Management Update (Retrieval Window)

