intra-mart WebPlatform/AppFramework

Version 6.1

Installation Guide

Fourth Edition
31 Januay 2008

<< Revision History >>

Revised Date	Revised Content
2007/07/31	First Edition
2007/08/31	Second Edition ● The way of installation by compulsion and interactively was added to “3.2.1 Starting Up and Operating Installer”. ● Statements in “3.2.2.11 Restriction of Line Break Code” have been corrected. ● Literal error in “3.2.4 About License Registration” has been corrected.
2007/10/19	Third Edition ● Contents were added to “3.2.2.6 Storage Service "
2008/01/31	Fourth Edition ● Fixed the literal error in the title of this document. ● Statements in “3.2.3.2.4.6 Installing into Server5” have been corrected.

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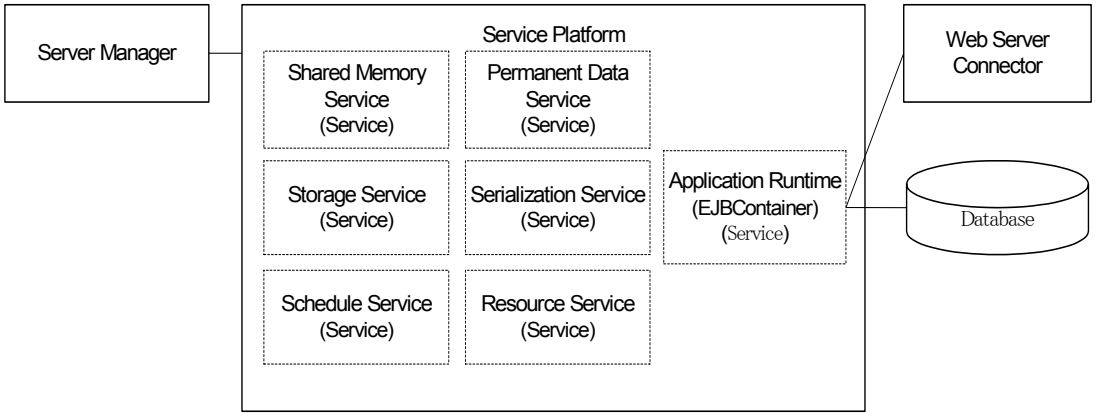
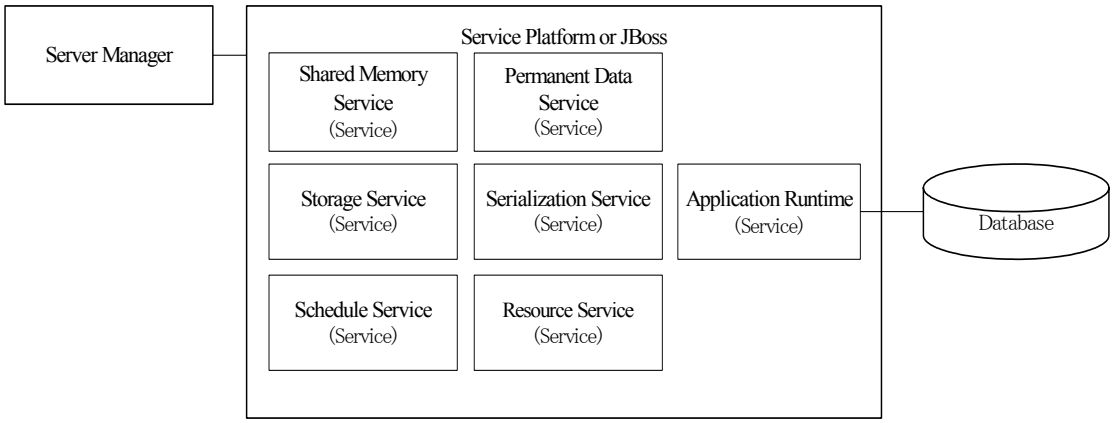
1 System Configuration

1.1 intra-mart WebPlatform (Resin)



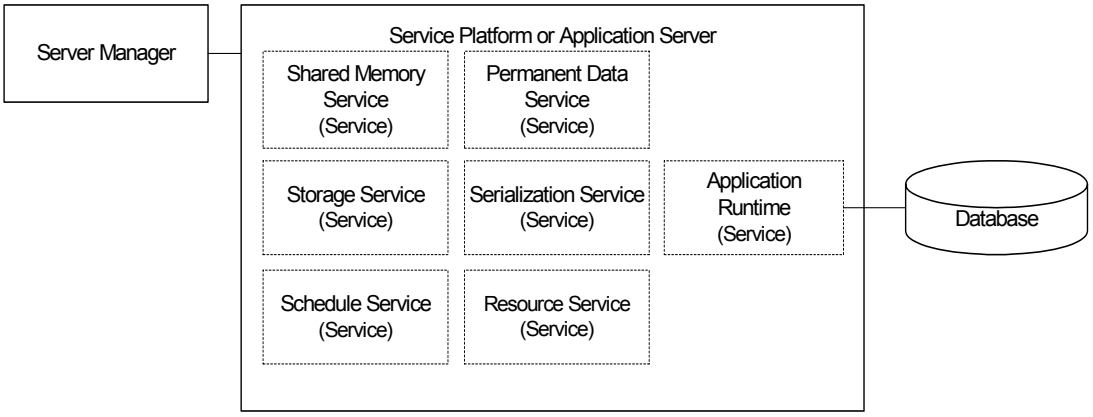
intra-mart WebPlatform Ver6.1 (Resin) is made up of 2 servers (Server Manager, Service Platform) and a Web Server Connector.

1.2 intra-mart WebPlatform (JBoss)



intra-mart WebPlatform Ver6.1 (JBoss) is made up of 2 servers (Server Manager, Service Platform).

1.3 intra-mart AppFramework



intra-mart AppFramework Ver6.1 is made up of 2 servers (Server Manager, Service Platform).

1.4 intra-mart DebugServer

Debug Server is only for debugging used in intra-mart e-Builder.

Please refer to install guide of intra-mart e-Builder about a method to install Debug Server.

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1.5 About Each Module

- **Server Manager**

  Server Manager manages the overall operational condition of Service Platform and its service groups.

  The information will be sent to intra-mart Administrator (client's administration tool), that enables im-Adiministrator to remote-monitor. In addition, Server Manager also manages the license information.

- **Service Platform (each service will operate)**

  Service Platform is a platform that executes the following service groups. Server process corresponds to this.

- **Service (operate on JavaVM)**

  - **Application Runtime**

    This is an application program execution engine.

    *If the installation is done on a distributed system, other services cannot be installed on the Service Platform (in case of intra-mart WebPlatform) and Application Server (in case of intra-mart AppFramework), which are in charge of operating Application Runtime. (Please refer to "3.2.3 Operating Machine Configuration and Installation" for details.)

    *This Application Runtime executes a batch program that is scheduled to activate by Schedule Service.

    *Unique IDs are also created by Service Platform.

  - **Shared Memory Service**

    This is a service that manages common memory.

    The information management provided by this service is sessionless. There will be no data loss caused by timeout.

  - **Permanent Data Service**

    This is a service that saves and manages data required for server operation.

    Since this service save information in a file, it can restore and retrieve the data stored earlier at the next activation, even when the service has already been terminated.

  - **Resource Service**

    This is a service that manages the sources of each presentation page and function container, which are required for intra-mart system operation and distribute necessary programs to Application Runtime.

  - **Storage Service**

    This is a service that manages common file.

    When using a distributed system with multiple numbers of Application Runtime, this service is employed to manage all uploaded files and system common files.

  - **Serialization Service**

    This is a collection of functions to be utilized by the entire system.

    This service provides lock control of applications.

◆ **Schedule Service**

This is a scheduling service for batch processing.

This service sends a request to Application Runtime to execute specific batch programs at the designated time. As a result, the batch programs will be executed by Application Runtime.

■ **Web Server Connector (In case of WebPlatform (Resin))**

It operates as an build-in module module on the WebServer.

■ **intra-mart Administrator (Operate on JavaVM)**

It operates on a client side, and manage each service group while communication the Server Manager.

It can start, stop, and configure the Server Manager and Service Platform.

In addition, it can manage them remotely from a different computer.

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1.6 Glossary

intra-mart WebPlatform Ver6.1	This is abbreviated as **IWP** hereafter. When using Resin as ApplicationServer, it is abbreviated as "**IWP (Resin)",** and When using JBoss as ApplicationServer, it is abbreviated as "**IWP (JBoss)".** A directory in which **IWP** installed is abbreviated as **<%im_path%>**.
intra-mart AppFramework Ver6.1	This is abbreviated as **AFW** hereafter. A directory in which **AFW** installed is abbreviated as **<%im_path%>**.
intra-mart DebugServer Ver6.1	This is abbreviated as **DS** hereafter. A directory in which **DS** is installed as **<%im_path%>**.
intra-mart Server Manager	This is a server to administrate overall system. This is abbreviated as **imSM**.
intra-mart Service Platform	This is a server body to start service. This is abbreviated as **imSP**.
Application Runtime	This is execution engine of application and abbreviated as **AppRuntime**.
Shared-Memory Service	This is a service to manage common memory and abbreviated as **SharedMemSrv**.
Permanent-Data Service	This is a service to manage persistent data and abbreviated as **PermDataSrv.**
Resource Service	This is a service to manage program files of script development model and abbreviated as **ResourceSrv**.
Storage Service	This is a service to manage files and abbreviated as **StorageSrv**.
Serialization Service	This is a service of exclusive control function and abbreviated as **SerializeSrv.**
Schedule Service	This is a service to control start time of batch program and abbreviated as **ScheduleSrv**.
Web Server Connector	This is a module to work together with WebServer and abbreviated as **WSC.** A directory in which **WSC** installed is abbreviated as **<%web_path%>**.
intra-mart Administrator	This is a viewer to observe overall the system and abbreviated as **imAdmin.**

1.7 Prerequisites

In order to use this product, your system has to satisfy the system requirements described in release note.
Please refer to the release note for details.

It is a prerequisite that both **IWP and AFW** run alongside while each interacts simultaneously with the database.
(This Installation Guide will also explain how to connect with the database.)

1.8 How to Use Database

- **In case of using Oracle**

  The connection to Oracle can be established via JDBC.
  In our company, JDBC driver's operation has been tested with Oracle JDBC Driver 10.2.0.1.0.

  (Notes) The installation of Oracle may change the version of Java Runtime.
  Please take note to install Java Runtime after installing Oracle.

- **In case of using Microsoft SQL Server 2005**

  The connection to Microsoft SQL Server 2005 can be established via JDBC.
  In our company, JDBC driver's operation has been tested with Microsoft SQL Server 2005 JDBC Driver 1.1.

- **In case of using DB2**

  The connection to DB2 can be established via JDBC.
  In our company, JDBC driver's operation has been tested with DB2 JDBC Driver (included with IBM DB2.9) Type 4.

- **In case of using PostgreSQL**

  The connection to PostgreSQL can be established via JDBC.
  In our company, JDBC driver's operation has been tested with postgresql-8.2-505.jdbc3.jar.

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2 Installation Flow

Please install this product according to the following procedure.

2.1 Creating Server Configuration Diagram

Create a server configuration diagram prior to the installation.

Please refer to “12 Appendix A intra-mart System Administration Sheet” (page 175) on how to create the server configuration diagram.

Reference		Page
3.1.1	Server configurationServer Configuration	17
エラー！参照元が見つかりません。	Operating Machine Configuration and Installation	エラー！ブックマークが定義されていません。 - 62

2.2 Database Installation

Install the database to be used.

How to register table space and users with Oracle10g

Reference		Page
エラー！参照元が見つかりません。	Appendix D Creating Tablespace and Users in Oracle10g	エラー！ブックマークが定義されていません。

2.3 Database Connection Driver Installation

Install the database connection driver.

	Reference		Page
Oracle	3.1.2.1	Oracle JDBC Driver Installation	Oracle
Microsoft SQL Server 2005	3.1.2.2	SQL Server 2005 JDBC Driver Installation	Microsoft SQL Server 2005
DB2	エラー！参照元が見つかりません。	DB2 JDBC Driver Installation	DB2
PostgreSQL	エラー！参照元が見つかりません。	エラー！参照元が見つかりません。	PostgreSQL

2.4 Java Runtime Installation

Install Java Runtime to all the computers that run intra-mart.

Reference	Page
エラー！ 参照元が見つかりません。 エラー! 参照元が見つかりません。	エラー! ブックマークが定義されていません。

2.5 WebServer Installation

In case of using IWP (Resin), WebServer needs to be installed.

Install in a computer designated to be the WebServer.

When running intra-mart HttpServer which is included in Application Runtime, WebServer does not need to be installed.

Reference	Page
3.1.4 WebServer Installation	20

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2.6 Application Server Installation

In case of using AFW, one of the following Application Servers needs to be installed.

Reference		Page
3.1.5.1	WebSphere Installatio	20
3.1.5.2	WebLogic	20

2.7 intra-mart Ver6.1Installation

Install intra-mart Ver 6.1 according to Server Configuration.

Reference		Page
3.2.1	Starting Up and Operating Installer	21
エラー！参照元が見つかりません。	Operating Machine Configuration and Installation	エラー！ブックマークが定義されていません。

2.8 Registering Web Server Connector

In case of using IWP (Resin), Web Server Connector needs to be registered.

Register Web Server Connector to WebServer.

If Application Runtime is run as HttpServer, Web Server Connector does not need to be registered.

■ **Web Server Settings**

Reference		Page
3.3.1	In case of In case of Apache 2	76
3.3.2	In case of In case of IIS6.0	79
エラー！参照元が見つかりません。	Round-robin Settings	エラー！ブックマークが定義されていません。

■ **Other settings**

Reference		Page
3.3.4.1	How To Change Alias	83
エラー！参照元が見つかりません。	Registering Self-Created Web Application	エラー！ブックマークが定義されていません。
エラー！参照元が見つかりません。	Changing URL of Login Page	エラー！ブックマークが定義されていません。

2.9 Setting up intra-mart WebPlatform(JBoss)

In case of using IWP (JBoss), when you change contents or re-compile a class, you have to make WAR file and deploy again.

Reference		Page
3.4	intra-mart WebPlatform (JBoss) Settings	88

2.10 Setting up Application Server

In case of using AFW, Application Server needs to be configured.

Reference		Page
3.5.1	WebSphere Settings	92
エラー！参照元が見つかりません。	エラー！参照元が見つかりません。s	エラー！ブックマークが定義されていません。

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2.11 Setting up Database Connection

It is a prerequisite to use intra-mart Ver6.1 with a database.

intra-mart must be configured to get connected to a database.

Reference		Page
3.6.1	PreparationPreparation	136
エラー！参照元が見つかりません。	エラー！参照元が見つかりません。 Settings	エラー！ブックマークが定義されていません。
3.6.3	data-source.xml Settings	139

2.12 Starting up intra-mart

■ **Order of start-up and stop**

Reference		Page
4.1.1	In case of In case of intra-mart WebPlatform (Resin)	141
4.1.2	In case of In case of intra-mart WebPlatform (JBoss)	141
4.1.3	In case of In case of intra-mart AppFramework	142

■ **A way to start up and stop Server Manager／Service Platform**

Reference		Page
4.2.1	Windows OS Environment	143
4.2.2	UNI Environment	147

■ **How to startup and shutdown of JBoss**

Reference		Page
4.3	How to startup and shutdown of JBoss	149

■ **How to startup and shutdown of ApplicationServer**

Reference		Page
4.4	How to startup and shutdown of ApplicationServer	149

2.13 Login to intra-mart

Launch a browser and access the intra-mart URL.

Reference		Page
5.1	Login as System Administrator	151
5.2	Creating Login Group	152
5.3	Importing Initial Data	156
エラー！参照元が見つかりません。	Login as Login Group Administrator	エラー！ブックマークが定義されていません。

2.14 Sample Data Input

Input intra-mart sample data.

Reference	Page
エラー！参照元が見つかりません。 Sample Data Input	エラー! ブックマークが定義されていません。

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3 Installation

3.1 Preparation

3.1.1 Server Configuration

3.1.1.1 Server Configuration Diagram

It is recommended to create the server configuration diagram prior to the installation.

IP address of each machine, port number of each Service Platform, and name of each service running on Service Platform must be clearly stated on the server configuration diagram.

Creating the server configuration diagram can simplify the installation procedure.

Please refer to **"3.2.3 Operating Machine Configuration and Installation"** on server configuration diagram.

3.1.2 JDBC Driver Installation

If you use database in this product, you have to install JDBC driver.

- **In case of IWP (Resin)**
  Suppose a directory, into which Service Platform that operates Application Runtime is installed, is called ***<%im_path%>***, the installed JDBC driver must be placed under ***<%im_path%>*/lib**.
  *** JDBC driver must be installed to all computers that operate Application Runtime.**
- **In case of AFW and IWP (JBoss)**
  JDBC driver installed must be added to the class path of Application Server in which Application Runtime runs.
  *** JDBC driver must be installed to all the computers with Application Server installed.**

3.1.2.1 Oracle JDBC Driver Installation

If you use Oracle in this product, you have to install.

If it is already installed, there is no need for re-installation..

Oracle JDBC driver is distributed in Japan Oracle Homepage, below;

http://otn.oracle.co.jp/software/tech/java/jdbc/index.html

(As of 31/07/2007)

Download **Oracle JDBC Driver from the page and install it.**

Please refer to Oracle homepage for details.

* In our company, JDBC driver's operation has been tested with Oracle JDBC Driver 10.2.0.1.0.

3.1.2.2 Microsoft SQL Server 2005 JDBC Driver Installation

If you use Microsoft SQL Server 2005 in this product, you have to install.
If it is already installed, there is no need for re-installation.

SQL Server 2005 Driver for JDBC can be downloaded from Microsoft Creator Network website.
It can be downloaded from
http://www.microsoft.com/downloads/details.aspx?FamilyID=6d483869-816a-44cb-9787-a866235efc7c&DisplayLang=ja (As of 31/07/2007)

Download **Microsoft SQL Server 2005 JDBC Driver** from the page and install it.
Please refer to Microsoft Developer Network website for details

* In our company, JDBC driver's operation has been tested with Microsoft SQL Server 2005 JDBC Driver 1.1.

3.1.2.3 DB2 JDBC Driver Installation

DB2 JDBC Driver must be installed in order to use DB2 with this product.
If it is already installed, there is no need for re-installation.

Install DB2 JDBC Driver Type4 attached to IBM DB2.
Please refer to DB2 Manual for details.

* In our company, JDBC driver's operation has been tested with DB2 JDBC Driver (attached to IBM DB2 9) Type4.

3.1.2.4 PostgreSQL 8.2 JDBC Driver Installation

PostgreSQL 8.2 JDBC Driver must be installed in order to use PostgreSQL 8.2 with this product.
If it is already installed, there is no need for re-installation.

PostgreSQL JDBC Driver can be downloaded from PostgreSQL JDBC website.
It can be downloaded from**http://jdbc.postgresql.org/download.html** (As of 31/07/2007)

Download **PostgreSQL JDBC Driver** from the page and install it.

* In our company, JDBC driver's operation has been tested with postgresql-8.2-505.jdbc3.

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3.1.3 Java Runtime Installation

Install Java Runtime to all computers that are installed with Server Module.

If it has been already installed, there is no need for re-installation.

3.1.3.1 Things to take note before Installation

3.1.3.1.1 In case of using Oracle as database

In case of using Oracle as database, the installation of Oracle might cause changing the version of Java Runtime.

Please make sure to install Java Runtime after installing Oracle.

3.1.3.1.2 In case of installing Solaris Java Runtime

Install necessary Solaris OS patches prior to the installation of Solaris Java Runtime.

If appropriate Solaris patches are not installed, it may not operate properly.

Java 2, Standard Version cluster patch for Solaris 10 OS can be downloaded from

http://jp.sunsolve.sun.com/pub-cgi/show.pl?target=patches/patch-access (As of 31/07/2007)

Please refer to the website, from which Java Runtime is downloaded, for details.

3.1.3.2 Installation Procedure

(1) Download Java Runtime (Java™ 2 SDK, Standard Edition 1.5.0_x). Java Runtime Installer can be downloaded from Sun Microsystems website.

http://java.sun.com/j2se/1.5.0/ja/download.html (As of 31/07/2007)

(2) Install using the downloaded installer.

Please refer to Sun Microsystems website for installation details.

http://java.sun.com/j2se/1.5.0/ja/install.html(As of 31/07/2007)

(3) Enter "**java-version**" in the command line and press Return key.

(4) The installation is completed when the version information is displayed on the command line..

3.1.4 WebServer Installation

In case of using IWP (Resin), WebServer needs to be installed.

When running intra-mart HttpServer which is included in Application Runtime, WebServer needs not to be installed.

Install in a computer designated to be the WebServer.

- **Apache2.0.x**
- **IIS6.0**

Please refer to the WebServer manual and follow the proper installation procedure.

3.1.5 Application Server Installation

In case of using FWv5, Application Server needs to be installed.

Select one of the following Application Servers.

- **IBM WebSphere Application Server Ver.6.1**
- **BEA Weblogic Server 10J**

3.1.5.1 WebSphere Installation

Extract and install WebSphere Application Server V6.1 from the WebSphere Application Server Installer.

*Please refer to WebSphere Manual for details.

3.1.5.2 WebLogic Installation

Extract and install BEA WebLogic Server10J from the WebLogic Server Installer.

*Please refer to WebLogic Server Manual for details.

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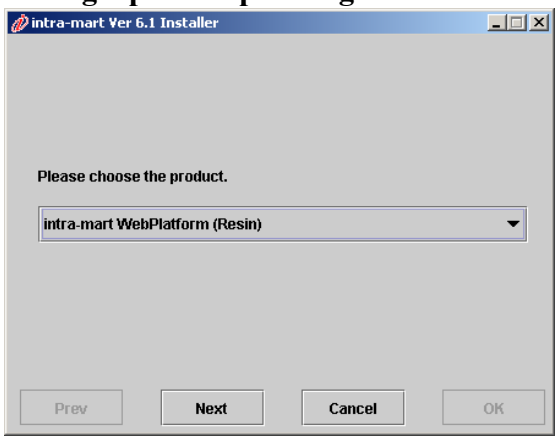
3.2 intra-mart Ver6.1 Installation

3.2.1 Starting Up and Operating Installer



Start-up and operation procedure of the installer should be as follows.

■ **Windows Environment**

(1) Check and confirm that there is a path after running the java.exe command

(2) Use Explorer to go to the directory where the CD-ROM of this product is located.

(3) Go to "intramart5¥install" directory.

(4) Double-click **setup.jar** to start.

(5) Installer screen will be displayed.

(6) Configure the setting items on the Installer screen, and click on [Next] button. Repeat until step (7).

(7) Lastly, the list of setting items will be displayed. If everything is OK, click on [OK] button.
(If not, click on [Prev] button to re-configure)

(8) The installation starts.

■ **UNIX OS Environment**

(1) Check and confirm that there is a path after running the java command.

(2) On the console screen, go to the directory where the CD-ROM of the product is located.

(3) Go to "intramart5/install" directory.

(4) Enter "**java –jar ./setup.jar**" on the console.

(5) Installer screen will be displayed.

(6) Configure the setting items on the Installer screen, and click on [Next] button. Repeat until step (7).

(7) Lastly, the list of setting items will be displayed. If everything is OK, click on [OK] button.
(if not, click on [Prev] button to re-configure)

(8) The installation starts.

For UNIX OS environment such as Solaris or Linux, the Installer window will be displayed only when installed on a machine already running Xwindow.
If Xwindow does not startup, the installation will be done interactively on the console.

If you install it in interactive mode, please add "**–con**" to the trail of start up command of installer.

Example: java -jar ./setup.jar -con

3.2.2 Installation of Directory Configuration

This section describes the installation of Directory Configuration.

3.2.2.1 Web Server Connector Directory Configuration

<%web_path%>

alert/	Alert Page Storage Directory
applet/	Applet Storage Directory
bpw/	BPW Storage Directory
csjs/	Client-Side Java Script Storage Director
css/	Cascading Style Sheet Storage Directory
flash/	Flash File Storage Directory
images/	Image Files Storage Directory
img/	Image Files Storage Directory (for compatibility with old versions)
maskat/	Maskat Storage Directory
round_robin/	Web Server Connector (Embedded Module)
skin/	Color Pattern Storage Directory
table_maintenance/	Table Maintenance Storage Directory
view_creator/	View_creator Storage Directory
identification.properties	Version information file (You can confirm batch number applied to WSC.)

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3.2.2.2 Server Manager Directory Configuration

```
<%im_path%>
├ bin/                    Server Module Execution File Storage Directory
│  ├ manager.bat          Server Manager Boot Script File (for Windows)
│  ├ manager.sh           Server Manager Boot Script File (for UNIX)
│  ├ MgrService.exe       Service Module File (for Windows)
│  ├ MgrService.ini       Service Initialization File (for Windows)
│  ├ service/             ServiceManager Storage Directory (for Windows)
│  └ tools/               Tools Storage Directory
│     ├ licedit.bat       License Registration Command File (for Windows)
│     └ licedit.sh        License Registration Command File (for UNIX)
├ conf/                   Server Module Common Default File Storage Directory
│  ├ imart.xml            intra-mart Basic Configuration File
│  ├ system.xml           intra-mart System Configuration File
│  ├ data-source.xml      Data Source Configuration File
│  ├ access-security.xml  Access Security Configuration File
│  ├ design/              Design-related Configuration File Storage Directory
│  ├ i18n/                Internationalization-related Configuration File Storage Directory
│  ├ message/             Message Files Storage Directory
│  └ mail/                Mail Delivery API Definition File Storage Directory
├ lib/                    intra-mart Server Module Common Library Storage Directory
├ license/                License Information Storage Directory
├ log/                    intra-mart Log Output Directory (created at the time of initialization)
├ specification/          Specification Information Storage Directory
└ work/                   intra-mart Temporary Work Directory (created at the time of initialization)
```

3.2.2.3 Application Runtime Directory Configuration

```
<%im_path%>
├ bin/                 Server Module Execution File Storage Directory
│ ├ server.bat         Server Platform Boot Script File (for Windows /IWP (Resin) only)
│ ├ server.sh          Server Platform Boot Script File (for UNIX/IWP (Resin) only)
│ ├ SrvService.exe     Service Module File (for Windows/IWP (Resin) only)
│ ├ SrvService.ini     Service Initialization File (for Windows/IWP (Resin) only)
│ └ service/           Service Manager Storage Directory (for Windows)
├ conf/                Server Module Common Initialization File Storage Directory
│ ├ http.xml           Regin Basic Configuration File (IWP (Resin) only)
│ ├ imart.xml          intra-mart Basic Configuration File
│ └ datastore/         Application Common Master Configuration File Storage Directory
├ classes/             Class Files Storage Directory
├ doc/                 Web Contents (JavaEE development Model Program) Storage Directory
├ lib/                 intra-mart Server Module Common Library Storage Directory
├ native/              DLL Storage Directory
├ log/                 intra-mart Log Output Directory (created at the time of initialization)
├ webapps/             Web-Application Archive's Storage Area (created at the time of initialization)
└ work/                intra-mart Temporary Work Directory (created at the time of initialization)
```

3.2.2.4 Shared Memory Service Directory Configuration

```
<%im_path%>
├ bin/                 Server Module Execution File Storage Directory
│ ├ server.bat         Service Platform Boot Script File (for Windows)
│ ├ server.sh          Service Platform Boot Script File (for UNIX)
│ ├ SrvService.exe     Service Module File (for Windows)
│ ├ SrvService.ini     Service Initialization File (for Windows)
│ └ service/           ServiceManager Storage Directory (for Windows)
├ conf/                Server Module Common Initialization File Storage Directory
│ └ imart.xml          intra-mart Basic Configuration File
├ classes/             Class Files Storage Directory
├ lib/                 intra-mart Server Module Common Library Storage Directory
├ log/                 intra-mart Log Output Directory (created at the time of initialization)
└ native/              DLL Storage Directory
```


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3.2.2.5 Permanent Data Service Directory Configuration

```
<%im_path%>
│
├ bin/                 Server Module Common Initialization File Storage Directory
│ │
│ ├ server.bat         Service Platform Boot Script File (for Windows)
│ ├ server.sh          Service Platform Boot Script File (for UNIX)
│ ├ SrvService.exe     Service Module File (for Windows)
│ ├ SrvService.ini     Service Initialization File (for Windows)
│ └ service/           ServiceManager Storage Directory (for Windows)
├ conf/                Server Module Common Initialization File Storage Directory
│ │
│ └ imart.xml          intra-mart Basic Configuration File
├ classes/             Class Files Storage Directory
├ lib/                 intra-mart Server Module Common Library Storage Directory
├ log/                 intra-mart Log Output Directory (created at the time of initialization)
├ native/              DLL Storage Directory
└ treasure             intra-mart Data Storage Directory (created at the time of initialization)
```

3.2.2.6 Storage Service Directory Configuration

```
<%im_path%>
├ bin/                    Server Module Common Initialization File Storage Directory
│  ├ server.bat           Service Platform Boot Script File (for Windows)
│  ├ server.sh            Service Platform Boot Script File (for UNIX)
│  ├ SrvService.exe       Service Module File (for Windows)
│  ├ SrvService.ini       Service Initialization File (for Windows)
│  └ service/             ServiceManager Storage Directory (for Windows)
├ conf/                   Server Module Common Initialization File Storage Directory
│  └ imart.xml            intra-mart Basic Configuration File
├ classes/                Class Files Storage Directory
├ lib/                    intra-mart Server Module Common Library Storage Directory
├ log/                    intra-mart Log Output Directory (created at the time of initialization)
├ native/                 DLL Storage Directory
└ storage/                Storage Service Resource Storage Directory
   ├ bpw/                 BPW Directory
   │  ├ database/         SQL to create index used for workflow Storage Directory
   │  ├ excel_template/   Template File for Process Definition Information Storage Directory
   │  ├ attach/           Attachment File at the Application Storage Directory
   │  └ code_manager/     File for Process Code Storage Directory
   ├ portal/              Portal Directory
   │  ├ portals/          Portal Rayout Information Storage Directory
   │  └ cache/            Cash Information of Portlet Storage Directory
   ├ system/              System Directory
   │  ├ basic/            Data for Log in Group Initialization Storage Directory
   │  ├ sample/           Sample Data Storage Directory
   │  ├ master/config/    Directory for import and export of application common master
   │  └ template/calendar/ Storage Directory  for <IMART type="calendar"> Template File
   ├ unit/                System Directory
   │  └ mail/             Directory used for Module.mailpool
   └ view_creator/        Directory for ViewCreator
                          (Create source in arbitrary directory in storage/ by using source output
                             function of ViewCreator)
```


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3.2.2.7 Resource Service Directory Configuration

```
<%im_path%>
├ bin/                    Server Module Common Initialization File Storage Directory
│ ├ server.bat             Service Platform Boot Script File (for Windows)
│ ├ server.sh              Service Platform Boot Script File (for UNIX)
│ ├ SrvService.exe         Service Module File (for Windows)
│ ├ SrvService.ini         Service Initialization File (for Windows)
│ ├ service/               ServiceManager Storage Directory (for Windows)
│ └ tools/                 Tool Storage Directory
│   └ js2class.bat         JavaScript Compiler Command File (for Windows)
├ conf/                   Server Module Common Initialization File Storage Directory
│ └ imart.xml              intra-mart Basic Configuration File
├ classes/                Class Files Storage Directory
├ lib/                    intra-mart Server Module Common Library Storage Directory
├ log/                    intra-mart Log Output Directory (created at the time of initialization)
├ native/                 DLL Storage Directory
└ pages/                  Page-Based Program Storage Directory
  ├ platform/src/         IWP/FWv5 Page-Based Program Storage Directory
  │ ├ bpw/                BPW Storage Directory
  │ ├ event_navigator/    Event Navigator Storage Directory
  │ ├ system/             System Configuration Page Storage Directory
  │ ├ template/           Template Page Storage Directory
  │ ├ tools/              Tool Page Storage Directory
  │ ├ wkf/                Old Workflow Module Storage Directory
  │ ├ setup.js            System Initialization Script File
  │ └ source-config.xml   Source Configuration File
  ├ product/src/          intra-mart Application (such as intranet start pack)'s Page-Based Program
  │                       Storage Directory
  └ src/                  Page-Based Programs Storage Directory (Created by Creator)
    └ init.js             Initialization Script File
```

3.2.2.8 Serialization Service Directory Configuration

```
<%im_path%>
├ bin/                 Server Module Common Initialization File Storage Directory
│  ├ server.bat        Service Platform Boot Script File (for Windows)
│  ├ server.sh         Service Platform Boot Script File (for UNIX)
│  ├ SrvService.exe    Service Module File (for Windows)
│  ├ SrvService.ini    Service Initialization File (for Windows)
│  └ service/          ServiceManager Storage Directory (for Windows)
├ conf/                Server Module Common Initialization File Storage Directory
│  └ imart.xml         intra-mart Basic Configuration File
├ classes/             Class Files Storage Directory
├ lib/                 intra-mart Server Module Common Library Storage Directory
├ log/                 intra-mart Log Output Directory (created at the time of initialization)
└ native               DLL Storage Directory
```

3.2.2.9 Schedule Service Directory Configuration

```
<%im_path%>
├ bin/                 Server Module Common Initialization File Storage Directory
│  ├ server.bat        Service Platform Boot Script File (for Windows)
│  ├ server.sh         Service Platform Boot Script File (for UNIX)
│  ├ SrvService.exe    Service Module File (for Windows)
│  ├ SrvService.ini    Service Initialization File (for Windows)
│  └ service/          ServiceManager Storage Directory (for Windows)
├ conf/                Server Module Common Initialization File Storage Directory
│  └ imart.xml         intra-mart Basic Configuration File
├ classes/             Class Files Storage Directory
├ lib/                 intra-mart Server Module Common Library Storage Directory
├ log/                 intra-mart Log Output Directory (created at the time of initialization)
└ native/              DLL Storage Directory
```

3.2.2.10 Sample

If “Install Sample” is selected from the Installer, a sample directory file will also be installed in addition to the Directory Configuration mentioned above.

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3.2.2.11 Restriction of Line Break Code

If you install intra-mart in Windows, line break code of files with following extension is LF.

- .xml
- .license
- .dtd
- .wsdd
- .wsdl

3.2.3 Operating Machine Configuration and Installation

This product can be run on various types of Machine Configuration.
In this section, the installation procedure will be explained based on various examples of Machine Configurations.

3.2.3.1 Notes

The followings are the notes on input items necessary for the installation.

(*1) When prompted for the address of **Server Manager** or **Service Platform**,
be sure to enter the **IP address of the machine**.
If "localhost" is entered, intra-mart system will not operate.
(Example) **192.168.0.2**

(*2) **Service Platform ID** is the **ID to uniquely identify** the intra-mart server.
Assign an ID that is different from the other Service Platforms.
If a duplicate ID is assigned, intra-mart system cannot operate properly.
In addition, the ID will be used by intra-mart Administrator for display purposes.
Acceptable character strings are **one-byte alphameric characters, "_ (underscore)", ": (colon)", and ". (dot)" only.**

As an example of Machine Configuration, "IP Address:Port Number" is used as a Service Platform ID.
(Example) **IP Address** into which Service Platform is installed: **192.168.0.2**
When the **Port Number** into which Service Platform is installed is **49150,**
Service Platform ID : 192.168.0.2:49150

(*3) Change only the **IP Address** and **Port Number** of the **Application Runtime URL**, according to the settings of Web Server Connector.
Since **http://･･･/ imart/HTTPActionEventListener** is the intra-mart settings, it is not necessary to change it under normal circumstances.
If the connection servlet's name is changed at the time of the Application Runtime configuration, please change them accordingly, too.

(Example) Web Server's **IP Address : 192.168.0.1**
When the Web Server's **Port Number is: 8080**
Application Runtime URL will be
http:// **192.168.0.1:8080** / imart/HTTPActionEventListener.

(*4) If Oracle10g is installed as standard setting, it will use the Port Number "**8080**" by default. As a result, should Application Runtime (including Standalone type) be installed in the same computer, the server may not be able to start up due to the conflict with the network's Port setting.
During installation, please ensure that **the port numbers are not overlapped**.

(*5) If you **establish multilingual system,** please select "**UTF-8**" as "**Server Module Character Code**" and "**Character Code to be transmitted to Web Browser**".

(*6) You can select JDK path included in Application Server or JDK path separately installed as JDK path to install **Application Runtime** in AFW.

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3.2.3.2 Machine Configuration intra-mart WebPlatform (Resin)

In this chapter, the Machine Configuration shown below is the example used when the product is installed.

■ OS	:	Windows
■ Server Module Character Code	:	Windows-31J
■ Character Code to be transmitted to Web Browser	:	Windows-31J
■ Product Type	:	IWP (Resin) Standard

If installed to other type of OS, please select relevant character code for the OS.
(If you establish **multilingual system,** please select "**UTF-8**" as "**Server Module Character Code**" and "**Character Code to be transmitted to Web Browser**".)

* In case of distributed Machine Configuration ("Machine Configuration 3 – Machine Configuration 4" in the following example), you are not able to install other services on JBoss running the Application Runtime.

3.2.3.2.1 Machine Configuration 1

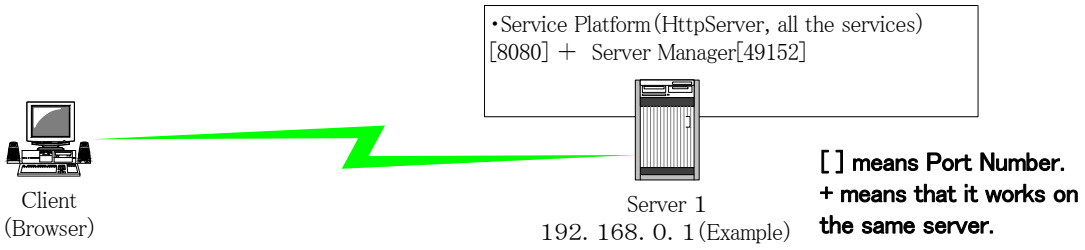
■ **Running on a Single Server**

Server Manager and Service Platform (all services) will be operated on the same server.

They will be operated using intra-mart HttpServer, which is included in Application Runtime.

Since **intra-mart HttpServer** is being used, there is **no need for Web Server Connector.**

Install **all server modules** to Server.



3.2.3.2.1.1 Installing into Server 1

■ **Install all server modules**

(1) Start up Installer. (Please refer to **3.2.1 Starting Up and Operating Installer** for details)

(2) Please proceed with the installation in the following procedure. (The following example is based on Windows, Standard version)

Procedures	Inputs
Select the product to be installed. (1: intra-mart WebPlatform (Resin) 2: intra-mart WebPlatform (JBoss) 3: intra-mart AppFramework 4: intra-mart DebugServer)?	**1**
Select the type of product to be installed. (1: Standard 2: Advanced 3: Enterprise)?	**1**
Install Server Module(y/n)?	**y**
Install web server connector (y/n)?	**n**
Install IM-Administrator (y/n)?	**y**
Enter the home directory of JDK	**Enter the full path**
Enter the location of installation	**Enter the full path (This location is referred to as "%im_path%")**
Select the configuration of Server Module. (1: Create standalone environment 2: Create distributed environment)?	**1**
Select the configuration of HTTP Server (1: Use intra-mart HTTP Server 2: Use Web Server Connector)?	**1**
Select the character code of Server Module. (1: Windows-31J 2: Shift_JIS 3: EUC-JP 4: UTF-8)?	**1(*5)**
Select the character code to be transmitted to the Web Server. (1: Windows-31J 2: Shift_JIS 3: EUC-JP 4: UTF-8)?	**1(*5)**
Enter the host address	**192.168.0.1 (*1)**
Enter the Port Number to be used by HTTP Server	**8080 (*4)**
Enter the Port Number to be used by Server Manager	**49152**
Enter Service Platform ID	**APP:192.168.0.1:8080 (*2)**
Enter Application Runtime URL	**http://192.168.108.1:8080/imart/HTTPActionEventListener**
Default Heap Size of Service Platform (Xms) [MB] (Example：64)	**64**
Maximum Heap Size of Service Platform (Xmx) [MB] (Example：128)	**128**
Install a sample (y/n)?	**n**
Register the following Start Menu	**intra-mart WebPlatform Ver6.1**
Is this configuration OK (y/n)?	**y**

In case of installing **Advanced Version or Enterprise version**, select "2: Advanced" or "3: Enterprise" for the

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type of product to be installed.

Please refer to **"3.2.3.1 Notes"** about details of **(*1), (*2), (*4) and (*5).**

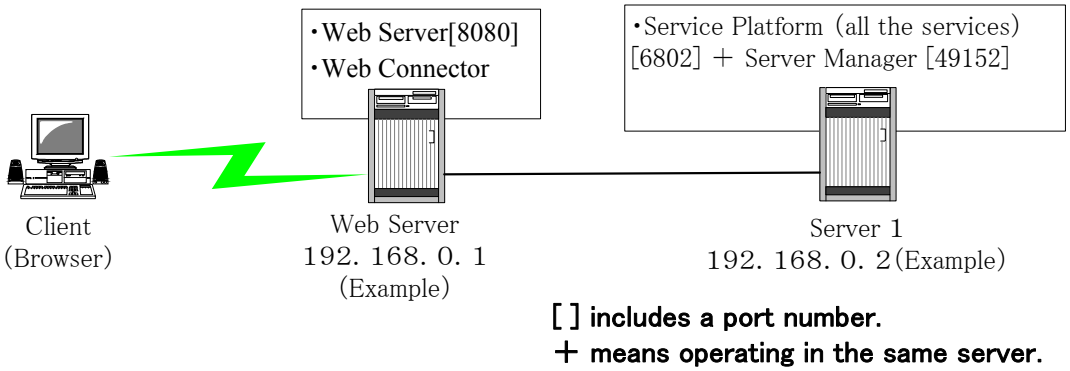
3.2.3.2.2 Machine Configuration 2

■ **Running on 2 Servers**

Server Manager and Service Platform (all services) will be operated within the same server.

Install **Web Server Connector** on the Web Server.

Install **all server modules** to Server 1.



3.2.3.2.2.1 Installing into the Web Server

■ **Install Web Server Connector**

(1) Start up Installer. (Please refer to 3.2.1 Starting Up and Operating Installer for details)

(2) Please proceed with the installation in the following procedure. (The following example is based on Windows, Standard version)

Procedures	Inputs
Select the product to be installed. (1: intra-mart WebPlatform (Resin) 2: intra-mart WebPlatform (JBoss) 3: intra-mart AppFramework 4: intra-mart DebugServer)?	**1**
Select the type of product to be installed. (1: Standard 2: Advanced 3: Enterprise)?	**1**
Install Server Module (y/n)?	**n**
Install Web Server Connector (y/n)?	**y**
Install IM-Administrator (y/n)?	**n**
Enter the installed location of Web Server Connector	**Enter the full path (This location is referred to as "%web_path%")**
Select the character code of Server Module. (1: Windows-31J 2: Shift_JIS 3: EUC-JP 4: UTF-8)?	**1(*5)**
Select the character code to be transmitted to the Web Server. (1: Windows-31J 2: Shift_JIS 3: EUC-JP 4: UTF-8)?	**1(*5)**
Install sample (y/n)?	**n**
Is this configuration OK(y/n)?	**y**

Please refer to **"3.2.3.1 Notes"** about details of **(*5).**

3.2.3.2.2.2 Installing into Server 1

■ **Install all server modules.**

(1) Start up the Installer. (Please refer to **3.2.1 Starting Up and Operating Installer** for details)

(2) Proceed with the installation in the following procedure. (The following example is based on Windows, Standard Version

Procedures	Inputs
Select the product to be installed. (1: intra-mart WebPlatform (Resin) 2: intra-mart WebPlatform (JBoss) 3: intra-mart AppFramework 4: intra-mart DebugServer)?	**1**
Select the type of product to be installed. (1: Standard 2: Advanced 3: Enterprise)?	**1**
Install Server Module(y/n)?	**y**
Install web server connector (y/n)?	**n**
Install IM-Administrator (y/n)?	**y**
Enter the home directory of JDK	**Enter the full path**
Enter the location of installation	**Enter the full path (This location is referred to as "%im_path%")**
Select the configuration of Server Module. (1: Create standalone environment 2: Create distributed environment)?	**1**
Select the configuration of HTTP Server (1: Use intra-mart HTTP Server 2: Use Web Server Connector)?	**2**
Select the character code of Server Module. (1: Windows-31J 2: Shift_JIS 3: EUC-JP 4: UTF-8)?	**1(*5)**
Select the character code to be transmitted to the Web Server. (1: Windows-31J 2: Shift_JIS 3: EUC-JP 4: UTF-8)?	**1(*5)**
Enter the host address	**192.168.0.2 (*1)**
Enter the Port Number to be used by Web Server Connector	**6802**
Enter the Port Number to be used by Server Manager	**49152**
Enter Service Platform ID	**APP:192.168.0.2:6802 (*2)**
Enter Application Runtime URL	**http://192.168.0.1:8080/imart/HTTPActionEventListener (*3)**
Default Heap Size of Service Platform (Xms) [MB] (Example：64)	**64**
Maximum Heap Size of Service Platform (Xmx) [MB] (Example：128)	**128**
Install a sample (y/n)?	**n**
Register the following Start Menu	**intra-mart WebPlatform Ver6.1**
Is this configuration OK (y/n)?	**y**

Please refer to **"3.2.3.1 Notes"** about details of **(*1), (*2), (*3) and (*5)**.

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3.2.3.2.3 Machine Configuration 3

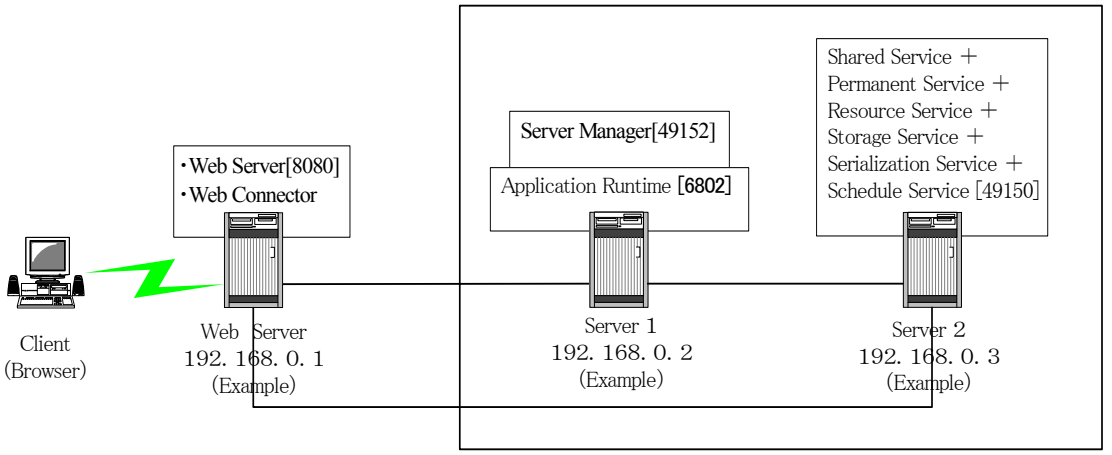
■ **Running on 3 Servers**

Install **Web Server Connector** to the Web Server.

Install **Server Manager and Application Runtime** to Server 1.

Install **all other services** to Server 2.

* Depending on the access frequency and the contents of application, Server 1 or 2 can be shared with DB server. In addition, it is possible to install Application Runtime as Web Server (HTTP Server).



[ ] means Port Number.
+ means that it works on the same server.

3.2.3.2.3.1 Installing into the Web Server

■ **Install Web Server Connector**

(1) Start up Installer. (Please refer to **3.2.1 Starting Up and Operating Installer** for details)

(2) Proceed with the installation in the following procedure. (The following example is based on Windows, Standard Version)

Procedures	Inputs
Select the product to be installed. (1: intra-mart WebPlatform (Resin) 2: intra-mart WebPlatform (JBoss) 3: intra-mart AppFramework 4: intra-mart DebugServer)?	**1**
Select the type of product to be installed. (1: Standard 2: Advanced 3: Enterprise)?	**1**
Install Server Module (y/n)?	**n**
Install Web Server Connector (y/n)?	**y**
Install IM-Administrator (y/n)?	**n**
Enter the installed location of Web Server Connector	**Enter the full path (This location is referred to as "%web_path%")**
Select the character code of Server Module. (1: Windows-31J 2: Shift_JIS 3: EUC-JP 4: UTF-8)?	**1(*5)**
Select the character code to be transmitted to the Web Server. (1: Windows-31J 2: Shift_JIS 3: EUC-JP 4: UTF-8)?	**1(*5)**
Install sample (y/n)?	**n**
Is this configuration OK(y/n)?	**y**

Please refer to "**3.2.3.1 Notes**" about details of (*5).

3.2.3.2.3.2 Installing into Server 1

■ **Install Server Manager and Application Runtime**

(1) Start up Installer. (Please refer to **3.2.1 Starting Up and Operating Installer** for details)

(2) Proceed with the installation in the following procedure. (The following example is based on Windows, Standard Version)

Procedures	Inputs
Select the product to be installed. (1: intra-mart WebPlatform (Resin) 2: intra-mart WebPlatform (JBoss) 3: intra-mart AppFramework 4: intra-mart DebugServer)?	**1**
Select the type of product to be installed. (1: Standard 2: Advanced 3: Enterprise)?	**1**
Install Server Module(y/n)?	**y**
Install web server connector (y/n)?	**n**
Install IM-Administrator (y/n)?	**y**
Enter the home directory of JDK	**Enter the full path**
Enter the location of installation	**Enter the full path (This location is referred to as "%im_path%")**
Select the configuration of Server Module. (1: Create standalone environment 2: Create distributed environment)?	**2**
Select the module to be installed. (1: Server Manager and Service Platform 2: Server Manager only 3: Service Platform only)?	**1**
Select a service of Service Platform (1: Application Runtime Service 2: Select other services)?	**1**
Select the configuration of HTTP Server (1: Use intra-mart HTTP Server 2: Use Web Server Connector)?	**2**
Select the character code of Server Module. (1:Windows-31J 2:SJIS 3:EUC-JP 4:UTF8)?	**1(*5)**
Select the character code to be transmitted to the Web Server. (1:Windows-31J 2:SJIS 3:EUC-JP 4:UTF8)?	**1(*5)**
Enter the host address	**192.168.0.2 (*1)**
Enter the Port Number to be connected to the Web Server Connector	**6802**
Enter the Port Number to be used by Server Manager	**49152**
Enter Service Platform ID	**APP:192.168.0.2:6802 (*2)**
Default Heap Size of Service Platform (-Xms) [MB] (Example：64)	**64**
Maximum Heap Size of Service Platform (-Xmx) [MB] (Example：128)	**128**
Install a sample (y/n)?	**n**
Register the following Start Menu	**intra-mart WebPlatform Ver6.1**
Is this configuration OK (y/n)?	**y**

Please refer to "**3.2.3.1 Notes**" about details of **(*1), (*2) and (*5).**

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3.2.3.2.3.3 Installing into Server 2

■ **Install all other services (except for Application Runtime)**

(1) Start up Installer. (Please refer to **3.2.1 Starting Up and Operating Installer** for details)

(2) Proceed with the installation in the following procedure. (The following example is based on Windows, Standard Version)

Procedures	Inputs
Select the product to be installed. (1: intra-mart WebPlatform (Resin) 2: intra-mart WebPlatform (JBoss) 3: intra-mart AppFramework 4: intra-mart DebugServer)?	**1**
Select the type of product to be installed. (1: Standard 2: Advanced 3: Enterprise)?	**1**
Install Server Module (y/n)?	**y**
Install Web Server Connector (y/n)?	**n**
Install IM-Administrator (y/n)?	**y**
Enter the home directory of JDK	**Enter the full path**
Enter the location of installation	**Enter the full path (This location is referred to as "%im_path%")**
Enter the full path (This location is referred to as "%im_path%")	**2**
Select the module to be installed. (1: Server Manager and Service Platform 2: Server Manager only 3: Service Platform only)?	**3**
Select a service of Service Platform (1: Application Runtime Service 2: Select other services)?	**2**
Install Shared Memory Service (y/n)?	**y**
Install Permanent Data Service (y/n)?	**y**
Install Resource Service (y/n)?	**y**
Install Storage Service (y/n)?	**y**
Install Serialization Service (y/n)?	**y**
Install Schedule Service(y/n)?	**y**
Select the character code of Server Module. (1: Windows-31J 2: Shift_JIS 3: EUC-JP 4: UTF-8)?	**1(*5)**
Enter the host address	**192.168.0.3 (*1)**
Enter the Port Number to be used by Service Platform	**49150**
Enter the address of Server Manager	**192.168.0.2 (*1)**
Enter the port number of Server Manager	**49152**
Enter Service Platform ID	**192.168.0.3:49150 (*2)**
Enter the URL of ApplicationRuntime	**http://192.168.0.1:8080/imart/HTTPActionEventListener (*3)**
Default Heap Size of Service Platform (Xms) [MB] (Example：64)	**64**
Maximum Heap Size of Service Platform (Xmx) [MB] (Example：128)	**128**
Install a sample (y/n)?	**n**
Register the following Start Menu	**intra-mart WebPlatform Ver6.1**
Is this configuration OK (y/n)?	**y**

Please refer to **"3.2.3.1 Notes"** about details of **(*1), (*2), (*3) and (*5).**

3.2.3.2.4 Machine Configuration 4

- **Running on 9 Servers**

  Install **Web Server Connector** to the Web Server.

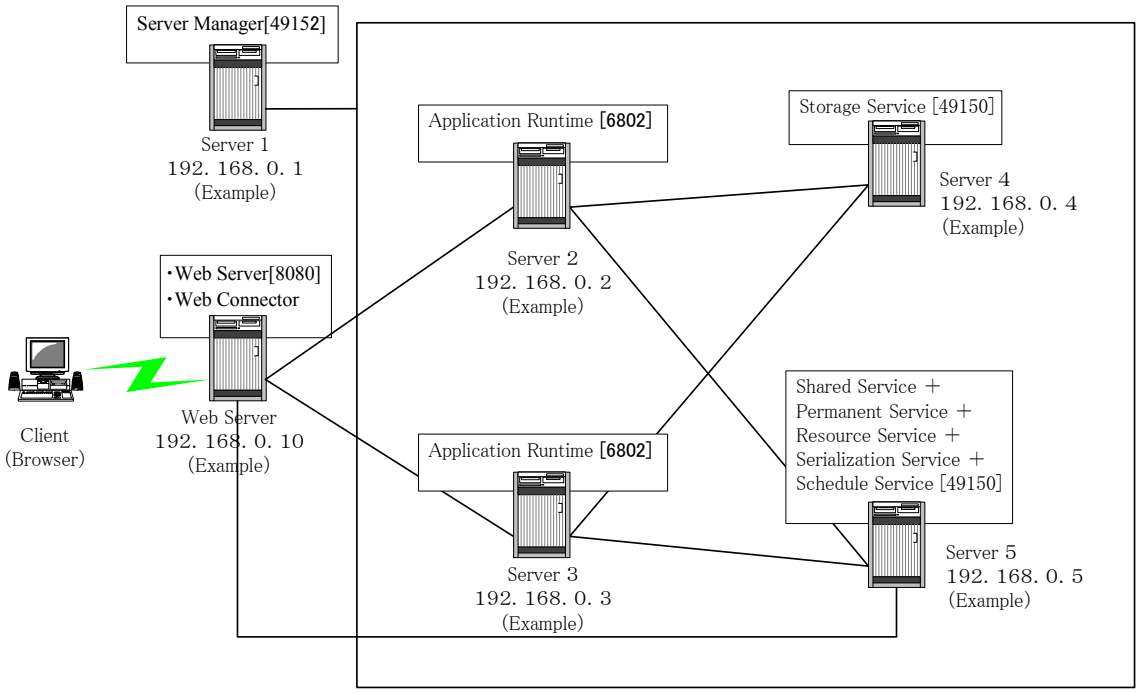
  Install **Server Manager** to Server 1.

  Install **Application Runtime** to Server 2.

  Install **Application Runtime** to Server 3.

  Install **Storage Service** to Server 4.

  Install al the **other Services** to Server 5.



[ ] means Port Number.
+ means that it works on the same server.

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3.2.3.2.4.1 Installing into the Web Server

■ **Install Web Server Connector**

(1) Start up Installer. (Please refer to **3.2.1 Starting Up and Operating Installer** for details)

(2) Proceed with the installation in the following procedure. (The following example is based on Windows, Standard Version)

Procedures	Inputs
Select the product to be installed. (1: intra-mart WebPlatform (Resin) 2: intra-mart WebPlatform (JBoss) 3: intra-mart AppFramework 4: intra-mart DebugServer)?	**1**
Select the type of product to be installed. (1: Standard 2: Advanced 3: Enterprise)?	**1**
Install Server Module (y/n)?	**n**
Install Web Server Connector (y/n)?	**y**
Install IM-Administrator (y/n)?	**n**
Enter the installed location of Web Server Connector	**Enter the full path (This location is referred to as "%web_path%")**
Select the character code of Server Module. (1: Windows-31J 2: Shift_JIS 3: EUC-JP 4: UTF-8)?	**1(*5)**
Select the character code to be transmitted to the Web Server. (1: Windows-31J 2: Shift_JIS 3: EUC-JP 4: UTF-8)?	**1(*5)**
Install sample (y/n)?	**n**
Is this configuration OK(y/n)?	**y**

Please refer to **"3.2.3.1 Notes"** about details of **(*5).**

3.2.3.2.4.2 Installing into Server 1

■ **Install Server Manager**

(1) Start up Installer. (Please refer to **3.2.1 Starting Up and Operating Installer** for details)

(2) Proceed with the installation in the following procedure. (The following example is based on Windows, Standard Version)

Procedures	Inputs
Select the product to be installed (1: intra-mart WebPlatform (Resin) 2: intra-mart WebPlatform (JBoss) 3: intra-mart AppFramework 4: intra-mart DebugServer)?	**1**
Select the type of product to be installed. (1: Standard 2: Advanced 3: Enterprise)?	**1**
Install Server Module (y/n)?	**y**
Install Web Server Connector (y/n)?	**n**
Install IM-Administrator (y/n)?	**y**
Enter the home directory of JDK	**Enter the full path**
Enter the location of installation	**Enter the full path (This location is referred to as "%im_path%")**
Select the configuration of Server Module. (1: Create standalone environment 2: Create distributed environment)?	**2**
Select the module to be installed. (1: Server Manager and Service Platform 2: Server Manager only 3: Service Platform only)?	**2**
Select the character code of Server Module. (1:Windows-31J 2:SJIS 3:EUC-JP 4:UTF8)?	**1(*5)**
Select the character code to be transmitted to the Web Server. (1:Windows-31J 2:SJIS 3:EUC-JP 4:UTF8)?	**1(*5)**
Enter the Port Number to be used by Server Manager	**49152**
Install a sample (y/n)?	**n**
Register the following Start Menu	**intra-mart WebPlatform Ver6.1**
Is this configuration OK (y/n)?	**y**

Please refer to **"3.2.3.1 Notes"** about details of **(*5).**

3.2.3.2.4.3 Installing into Server 2

■ **Install Application Runtime**

(1) Start up Installer. (Please refer to **3.2.1 Starting Up and Operating Installer** for details)

(2) Proceed with the installation in the following procedure. (The following example is based on Windows, Standard Version)

Procedures	Inputs
Select the product to be installed (1: intra-mart WebPlatform (Resin) 2: intra-mart WebPlatform (JBoss) 3: intra-mart AppFramework 4: intra-mart DebugServer)?	**1**
Select the type of product to be installed. (1: Standard 2: Advanced 3: Enterprise)?	**1**
Install Server Module (y/n)?	**y**
Install Web Server Connector (y/n)?	**n**
Install IM-Administrator (y/n)?	**y**
Enter the home directory of JDK	**Enter the full path**
Enter the location of installation	**Enter the full path (This location is referred to as "%im_path%")**
Select the configuration of Server Module. (1: Create standalone environment 2: Create distributed environment)?	**2**
Select the module to be installed. (1: Server Manager and Service Platform 2: Server Manager only 3: Service Platform only)?	**3**
Select a service of Service Platform (1: Application Runtime Service 2: Select other services)?	**1**
Select the configuration of HTTP Server (1: Use intra-mart HTTP Server 2: Use Web Server Connector)?	**2**
Select the character code of Server Module. (1:Windows-31J 2:SJIS 3:EUC-JP 4:UTF8)?	**1(*5)**
Select the character code to be transmitted to the Web Server. (1:Windows-31J 2:SJIS 3:EUC-JP 4:UTF8)?	**1(*5)**
Enter the host address	**192.168.0.2 (*1)**
Enter the Port Number to be connected to the Web Server Connector	**6802**
Enter the address of Server Manager	**192.168.0.1 (*1)**
Enter the Port Number of Server Manager	**49152**
Enter Service Platform ID	**APP:192.168.0.2:6802 (*2)**
Default Heap Size of Service Platform (-Xms) [MB] (Example：64)	**64**
Maximum Heap Size of Service Platform (-Xmx) [MB] (Example：128)	**128**
Install a sample (y/n)?	**n**
Register the following Start Menu	**intra-mart WebPlatform Ver6.1**
Is this configuration OK (y/n)?	**y**

Please refer to **"3.2.3.1 Notes"** about details of **(*1), (*2) and (*5).**

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3.2.3.2.4.4 Installing into Server 3

■ **Application Runtime Installation**

(1) Start up Installer. (Please refer to **3.2.1 Starting Up and Operating Installer** for details)

(2) Proceed with the installation in the following procedure. (The following example is based on Windows, Standard Version)

Procedures	Inputs
Select the product to be installed (1: intra-mart WebPlatform (Resin) 2: intra-mart WebPlatform (JBoss) 3: intra-mart AppFramework 4: intra-mart DebugServer)?	**1**
Select the type of product to be installed. (1: Standard 2: Advanced 3: Enterprise)?	**1**
Install Server Module (y/n)?	**y**
Install Web Server Connector (y/n)?	**n**
Install IM-Administrator (y/n)?	**y**
Enter the home directory of JDK	**Enter the full path**
Enter the location of installation	**Enter the full path (This location is referred to as "%im_path%")**
Select the configuration of Server Module. (1: Create standalone environment 2: Create distributed environment)?	**2**
Select the module to be installed. (1: Server Manager and Service Platform 2: Server Manager only 3: Service Platform only)?	**3**
Select a service of Service Platform (1: Application Runtime Service 2: Select other services)?	**1**
Select the configuration of HTTP Server (1: Use intra-mart HTTP Server 2: Use Web Server Connector)?	**2**
Select the character code of Server Module. (1:Windows-31J 2:SJIS 3:EUC-JP 4:UTF8)?	**1(*5)**
Select the character code to be transmitted to the Web Server. (1:Windows-31J 2:SJIS 3:EUC-JP 4:UTF8)?	**1(*5)**
Enter the host address	**192.168.0.3 (*1)**
Enter the Port Number to be connected to the Web Server Connector	**6802**
Enter the address of Server Manager	**192.168.0.1 (*1)**
Enter the Port Number of Server Manager	**49152**
Enter Service Platform ID	**APP:192.168.0.3:6802 (*2)**
Default Heap Size of Service Platform (-Xms) [MB] (Example：64)	**64**
Maximum Heap Size of Service Platform (-Xmx) [MB] (Example：128)	**128**
Install a sample (y/n)?	**n**
Register the following Start Menu	**intra-mart WebPlatform Ver6.1**
Is this configuration OK (y/n)?	**y**

Please refer to **"3.2.3.1 Notes"** about details of **(*1), (*2) and (*5).**

3.2.3.2.4.5 Installing into Server 4

■ **Install Storage Service**

(1) Start up Installer. (Please refer to **3.2.1 Starting Up and Operating Installer** for details)

(2) Proceed with the installation in the following procedure. (The following example is based on Windows, Standard Version)

Procedures	Inputs
Select the product to be installed (1: intra-mart WebPlatform (Resin) 2: intra-mart WebPlatform (JBoss) 3: intra-mart AppFramework 4: intra-mart DebugServer)?	**1**
Select the type of product to be installed. (1: Standard 2: Advanced 3: Enterprise)?	**1**
Install Server Module (y/n)?	**y**
Install Web Server Connector (y/n)?	**n**
Install IM-Administrator (y/n)?	**y**
Enter the home directory of JDK	**Enter the full path**
Enter the location of installation	**Enter the full path (This location is referred to as“%im_path%”)**
Select the configuration of Server Module. (1: Create standalone environment 2: Create distributed environment)?	**2**
Select the module to be installed. (1: Server Manager and Service Platform 2: Server Manager only 3: Service Platform only)?	**3**
Select a service of Service Platform (1: Application Runtime Service 2: Select other services)?	**2**
Install Shared Memory Service (y/n)?	**n**
Install Permanent Data Service (y/n)?	**n**
Install Resource Service (y/n)?	**n**
Install Storage Service (y/n)?	**y**
Install Serialization Service (y/n)?	**n**
Install Schedule Service (y/n)?	**n**
Select the character code of Server Module. (1:Windows-31J 2:SJIS 3:EUC-JP 4:UTF8)?	**1(*5)**
Enter the host address	**192.168.0.4 (*1)**
Enter the Port Number to be used by Service Platform	**49150**
Enter the address of Server Manager	**192.168.0.1 (*1)**
Enter the Port Number of Server Manager	**49152**
Enter Service Platform ID	**192.168.0.4:49150 (*2)**
Default Heap Size of Service Platform (-Xms) [MB] (Example：64)	**64**
Maximum Heap Size of Service Platform (-Xmx) [MB] (Example：128)	**128**
Install a sample (y/n)?	**n**
Register the following Start Menu	**intra-mart WebPlatform Ver6.1**
Is this configuration OK (y/n)?	**y**

Please refer to **“3.2.3.1 Notes”** about details of **(*1), (*2) and (*5).**

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3.2.3.2.4.6 Installing into Server 5

■ **Install the services (except for Application Runtime and Storage Service)**

(1) Start up Installer. (Please refer to **3.2.1 Starting Up and Operating Installer** for details)

(2) Proceed with the installation in the following procedure. (The following example is based on Windows, Standard Version)

Procedures	Inputs
Select the product to be installed (1: intra-mart WebPlatform (Resin) 2: intra-mart WebPlatform (JBoss) 3: intra-mart AppFramework 4: intra-mart DebugServer)?	**1**
Select the type of product to be installed. (1: Standard 2: Advanced 3: Enterprise)?	**1**
Install Server Module (y/n)?	**y**
Install Web Server Connector (y/n)?	**n**
Install IM-Administrator (y/n)?	**y**
Enter the home directory of JDK	**Enter the full path**
Enter the location of installation	**Enter the full path (This location is referred to as "%im_path%")**
Select the configuration of Server Module. (1: Create standalone environment 2: Create distributed environment)?	**2**
Select the module to be installed. (1: Server Manager and Service Platform 2: Server Manager only 3: Service Platform only)?	**3**
Select a service of Service Platform (1: Application Runtime Service 2: Select other services)?	**2**
Install Shared Memory Service (y/n)?	**y**
Install Permanent Data Service (y/n)?	**y**
Install Resource Service (y/n)?	**y**
Install Storage Service (y/n)?	**n**
Install Serialization Service (y/n)?	**y**
Install Schedule Service (y/n)?	**y**
Select the character code of Server Module. (1:Windows-31J 2:SJIS 3:EUC-JP 4:UTF8)?	**1(*5)**
Enter the host address	**192.168.0.5 (*1)**
Enter the Port Number to be used by Service Platform	**49150**
Enter the address of Server Manager	**192.168.0.1 (*1)**
Enter the Port Number of Server Manager	**49152**
Enter Service Platform ID	**192.168.0.5:49150 (*2)**
Enter the URL of ApplicationRuntime	**http://192.168.0.1:8080/imart/HTTPActionEventListener (*3)**
Default Heap Size of Service Platform (-Xms) [MB] (Example：64)	**64**
Maximum Heap Size of Service Platform (-Xmx) [MB] (Example：128)	**128**
Install a sample (y/n)?	**n**
Register the following Start Menu	**intra-mart WebPlatform Ver6.1**
Is this configuration OK (y/n)?	**y**

Please refer to **"3.2.3.1 Notes"** about details of **(*1), (*2) and (*5).**

3.2.3.3 Machine Configuration of intra-mart WebPlatform (JBoss)

In this chapter, the Machine Configuration shown below is the example that is used when the product is installed.

- ■ OS : Windows
- ■ Server modules' character code : Windows-31J
- ■ Character code to be transmitted to the Web Server. : Windows-31J
- ■ Type of products : IWP (JBoss) Standard

If installed using other type of OS, please select relevant character code for the OS.
(**If you establish multilingual system,** please select "**UTF-8**" as "**Server Module Character Code**" and "**Character Code to be transmitted to Web Browser**".)

* In case of distributed Machine Configuration ("Machine Configuration2 – Machine Configuration3" in the following example), you are not able to install other services on JBoss running the Application Runtime.

*When installation of ApplicationRutime is completed, installation of JBoss and creation of War file are also completed. (You can start up JBoss by exciting "**run –c imart"** command in ***<%JBoss_path%>***/bin.) In case of using IWP (JBoss), when you change contents or re-compile a class, you have to make WAR file and deploy again.

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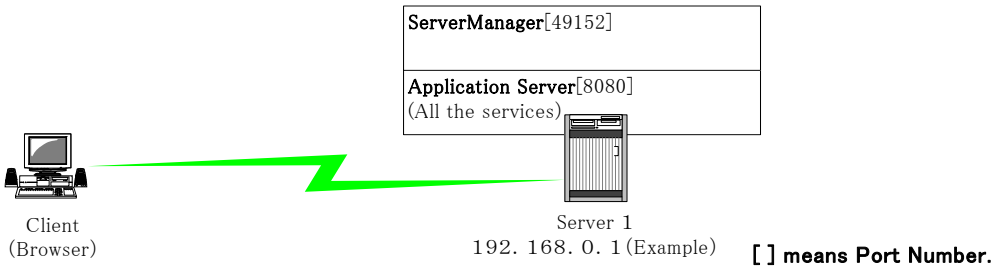
3.2.3.3.1 Machine Configuration1

■ **Running on One Server**

Install **Application Server** and **all services** to Server.



3.2.3.3.1.1 Installing into Server 1

■ **Install al l the Services**

(1) Start up Installer. (Please refer to 3.2.1 Starting Up and Operating Installer for details)

(2) Proceed with the installation in the following procedure. (The following example is based on Windows, Standard Version)

Procedures	Inputs
Select the product to be installed. (1: intra-mart WebPlatform (Resin) 2: intra-mart WebPlatform (JBoss) 3: intra-mart AppFramework 4: intra-mart DebugServer)?	**2**
Select the type of product to be installed. (1: Standard 2: Advanced 3: Enterprise)?	**1**
Install Server Module (y/n)?	**y**
Install IM-Administrator (y/n)?	**y**
Enter the home directory of JDK	**Enter the full path**
Enter the location of installation	**Enter the full path (This location is referred to as "%im_path%")**
Select the configuration of Server Module. (1: Create standalone environment 2: Create distributed environment)?	**1**
Select the character code of Server Module. (1: Windows-31J 2: SJIS 3: EUC-JP 4:UTF8)?	**1(*5)**
Select the character code to be transmitted to the Web Server (1: Windows-31J 2: SJIS 3: EUC-JP 4:UTF8)?	**1(*5)**
Enter the host address	**192.168.0.1 (*1)**
Enter the location of installation of JBoss	**Enter the full path (This location is referred to as "%boss_path%")**
Enter the Port Number to be used by JBoss	**8080**
Enter the Port Number to be used by Server Manager	**49152**
Enter Service Platform ID	**APP:192.168.0.1 (*2)**
Enter Application Runtime URL	**http://192.168.0.1:8080/imart/HTTPActionEventListener (*3)**
Install a sample (y/n)?	**n**
Register the following Start Menu	**intra-mart WebPlatform Ver6.1**
Is this configuration OK (y/n)?	**y**

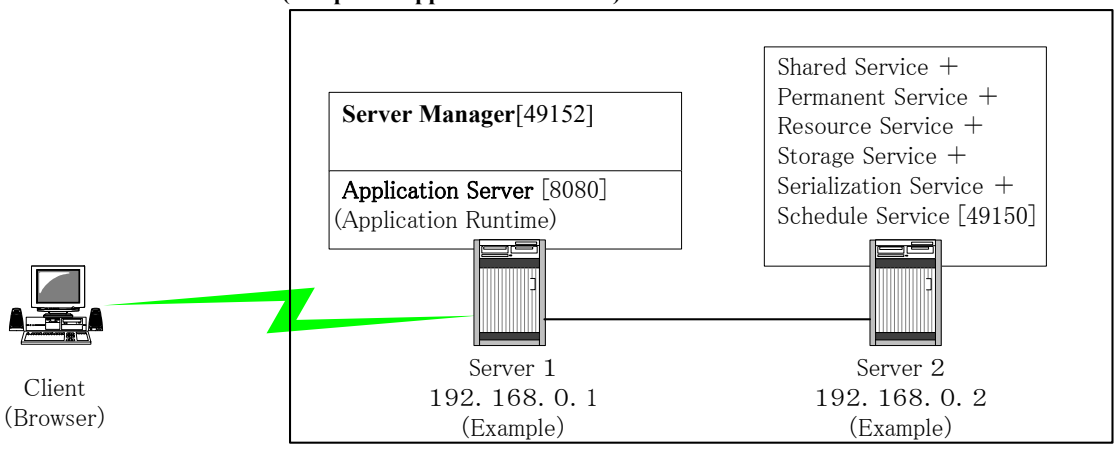
Please refer to **"3.2.3.1 Notes"** about details of **(*1), (*2), (*3) and (*5).**

3.2.3.3.2 Machine Configuration2

■ **Running on 2 Servers**

Install **Application Runtime** and **Server Manager** to Server 1.

Install **all other services (except for Application Runtime)** to Server 2.



[ ] means Port Number
+ means that it works on the same server.

3.2.3.3.2.1 Installing into Server 1

■ **Install Server Manager and ApplicationRuntime**

(1) Start up Installer. (Please refer to 3.2.1 Starting Up and Operating Installer for details)

(2) Proceed with the installation in the following procedure. (The following example is based on Windows, Standard Version)

Procedures	Inputs
Select the product to be installed. (1: intra-mart WebPlatform (Resin) 2: intra-mart WebPlatform (JBoss) 3: intra-mart AppFramework 4: intra-mart DebugServer)?	**2**
Select the type of product to be installed. (1: Standard 2: Advanced 3: Enterprise)?	**1**
Install Server Module(y/n)?	**y**
Install IM-Administrator (y/n)?	**y**
Enter the home directory of JDK	**Enter the full path**
Enter the location of installation	**Enter the full path (This location is referred to as "%im_path%")**
Select the configuration of Server Module. (1: Create standalone environment 2: Create distributed environment)?	**2**
Select the configuration of HTTP Server (1: Use intra-mart HTTP Server 2: Use Web Server Connector)?	**1**
Select a service of Service Platform (1: Application Runtime Service 2: Select other services)?	**1**
Select the character code of Server Module. (1:Windows-31J 2:SJIS 3:EUC-JP 4:UTF8)?	**1(*5)**
Select the character code to be transmitted to the Web Server (1:Windows-31J 2:SJIS 3:EUC-JP 4:UTF8)?	**1(*5)**
Enter the host address	**192.168.0.1 (*1)**
Enter the location of installation of JBoss	**Enter the full path(This location is referred to as "%jboss_path%")**
Enter the Port Number to be used by JBoss	**8080**
Enter the Port Number to be used by Server Manager	**49152**
Enter Service Platform ID	**APP:192.168.0.1 (*2)**

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Install a sample (y/n)?	**n**
Register the following Start Menu	**intra-mart WebPlatform Ver6.1**
Is this configuration OK (y/n)?	**y**

Please refer to **"3.2.3.1 Notes"** about details of **(*1), (*2) and (*5).**

3.2.3.3.2.2 Installing into Server 2

■ **Install all other services (except for Application Runtime)**

(1) Start up Installer. (Please refer to 3.2.1 Starting Up and Operating Installer for details)

(2) Proceed with the installation in the following procedure. (The following example is based on Windows, Standard Version)

Procedures	Inputs
Select the product to be installed. (1: intra-mart WebPlatform (Resin) 2: intra-mart WebPlatform (JBoss) 3: intra-mart AppFramework 4: intra-mart DebugServer)?	**2**
Select the type of product to be installed. (1: Standard 2: Advanced 3: Enterprise)?	**1**
Install Server Module(y/n)?	**y**
Install IM-Administrator (y/n)?	**y**
Enter the home directory of JDK	**Enter the full path**
Enter the location of installation	**Enter the full path (This location is referred to as "%im_path%")**
Select the configuration of Server Module. (1: Create standalone environment 2: Create distributed environment)?	**2**
Select the configuration of HTTP Server (1: Use intra-mart HTTP Server 2: Use Web Server Connector)?	**3**
Select a service of Service Platform (1: Application Runtime Service 2: Select other services)?	**2**
Install Shared Memory Service (y/n)?	**y**
Install Permanent Data Service (y/n)?	**y**
Install Resource Service (y/n)?	**y**
Install Storage Service (y/n)?	**y**
Install Serialization Service (y/n)?	**y**
Install Schedule Service (y/n)?	**y**
Select the character code of Server Module. (1:Windows-31J 2:SJIS 3:EUC-JP 4:UTF8)?	**1(*5)**
Enter the host address	**192.168.0.2 (*1)**
Enter the Port Number to be used by Service Platform	**49150**
Enter the address of Server Manager	**192.168.0.1 (*1)**
Enter the Port Number of Server Manager	**49152**
Enter Service Platform ID	**192.168.0.2:49150 (*2)**
Enter the URL of ApplicationRuntime	**http://192.168.0.1:8080/imart/HTTPActionEventListener (*3)**
Default Heap Size of Service Platform (-Xms) [MB] (Example：64)	**64**
Maximum Heap Size of Service Platform (-Xmx) [MB] (Example：128)	**128**
Install a sample (y/n)?	**n**
Register the following Start Menu	**intra-mart WebPlatform Ver6.1**
Is this configuration OK (y/n)?	**y**

Please refer to **"3.2.3.1 Notes"** about details of **(*1), (*2), (*3) and (*5).**

3.2.3.3.3 Machine Configuration3

■ **Running on 4 Servers**

Install **Server Manager** to Server 1.

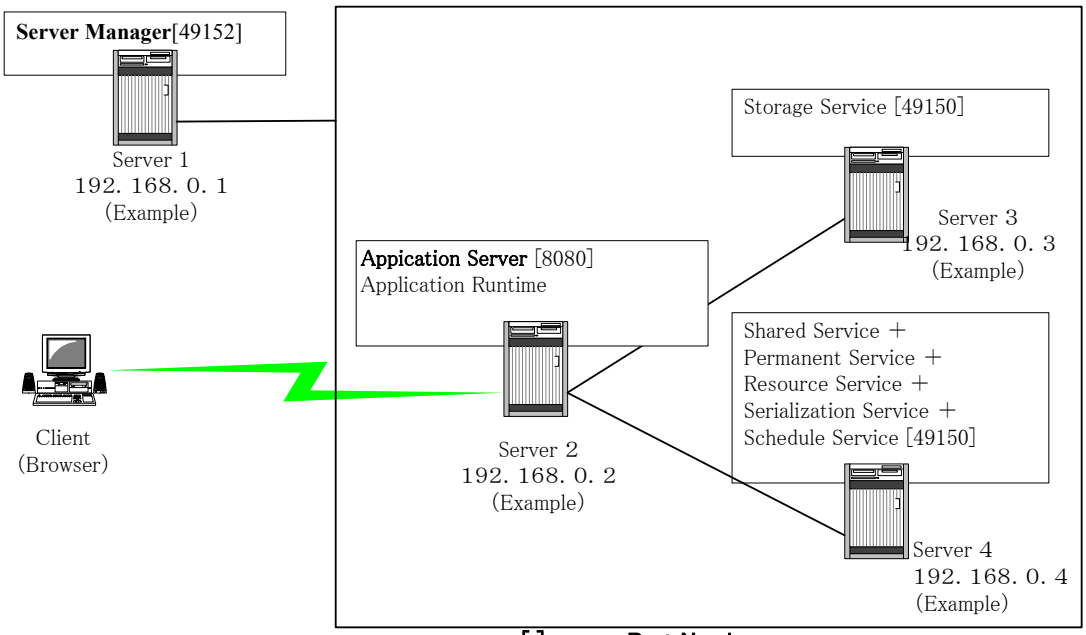
Install **Application Runtime** to Server 2.

Install **Storage Service** to Server 3.

Install all **other services** to Server 4.

* If the utilization of Storage Service is low, it can be installed to Server 4.

* Depending on the access frequency and the contents of application, Server 2 or 3 can be shared with DB server.



[ ] means Port Number.
+ means that it works on the same server.

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3.2.3.3.3.1 Installing into Server 1

■ **Install Server Manager**

(1) Start up Installer. (Please refer to 3.2.1 Starting Up and Operating Installer for details)

(2) Proceed with the installation in the following procedure. (The following example is based on Windows, Standard Version)

Procedures	Inputs
Select the product to be installed. (1: intra-mart WebPlatform (Resin) 2: intra-mart WebPlatform (JBoss) 3: intra-mart AppFramework 4: intra-mart DebugServer)?	**2**
Select the type of product to be installed. (1: Standard 2: Advanced 3: Enterprise)?	**1**
Install Server Module (y/n)?	**y**
Install IM-Administrator (y/n)?	**y**
Enter the home directory of JDK	**Enter the full path**
Enter the location of installation	**Enter the full path (This location is referred to as "%im_path%")**
Select the configuration of Server Module. (1: Create standalone environment 2: Create distributed environment)?	**2**
Select the module to be installed. (1: Server Manager and Service Platform 2: Server Manager only 3: Service Platform only)?	**2**
Select the character code of Server Module. (1: Windows-31J 2: Shift_JIS 3: EUC-JP 4: UTF-8)?	**1(*5)**
Select the character code to be transmitted to the Web Server (1: Windows-31J 2: Shift_JIS 3: EUC-JP 4: UTF-8)?	**1(*5)**
Enter the Port Number to be used by Server Manager	**49152**
Install a sample (y/n)?	**n**
Register the following Start Menu	**intra-mart WebPlatform Ver6.1**
Is this configuration OK (y/n)?	**y**

Please refer to **"3.2.3.1 Notes"** about details of **(*5).**

3.2.3.3.3.2 Installing into Server 2

■ **Install Application Runtime**

(1) Start up Installer. (Please refer to 3.2.1 Starting Up and Operating Installer for details)

(2) Proceed with the installation in the following procedure. (The following example is based on Windows, Standard Version)

Procedures	Inputs
Select the product to be installed. (1: intra-mart WebPlatform (Resin) 2: intra-mart WebPlatform (JBoss) 3: intra-mart AppFramework 4: intra-mart DebugServer)?	**2**
Select the type of product to be installed. (1: Standard 2: Advanced 3: Enterprise)?	**1**
Install Server Module (y/n)?	**y**
Install IM-Administrator (y/n)?	**y**
Enter the home directory of JDK	**Enter the full path**
Enter the location of installation	**Enter the full path (This location is referred to as "%im_path%")**
Select the configuration of Server Module. (1: Create standalone environment 2: Create distributed environment)?	**2**
Select the module to be installed. (1: Server Manager and Service Platform 2: Server Manager only 3: Service Platform only)?	**3**
Select a service of Service Platform (1: Application Runtime Service 2: Select other services)?	**1**
Select the character code of Server Module. (1: Windows-31J 2: Shift_JIS 3: EUC-JP 4: UTF-8)?	**1(*5)**
Select the character code to be transmitted to the Web Server (1: Windows-31J 2: Shift_JIS 3: EUC-JP 4: UTF-8)?	**1(*5)**
Enter the address of the host	**192.168.0.2 (*1)**
Enter the location of installation of JBoss	**Enter the full path (This location is referred to as "%jboss_path%")**
Enter the Port Number to be used by JBoss	**8080**
Enter the Port Number to be used by Server Manager	**192.168.0.1 (*1)**
Enter the Port Number of Server Manager	**49152**
Enter Service Platform ID	**APP:192.168.0.2 (*2)**
Install a sample (y/n)?	**n**
Register the following Start Menu	**intra-mart WebPlatform Ver6.1**
Is this configuration OK (y/n)?	**y**

Please refer to **"3.2.3.1 Notes"** about details of **(*1), (*2) and (*5).**

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3.2.3.3.3.3 Installing into Server 3

■ **Install Storage Service**

(1) Start up Installer. (Please refer to 3.2.1 Starting Up and Operating Installer for details)

(2) Proceed with the installation in the following procedure. (The following example is based on Windows, Standard Version)

Procedures	Inputs
Select the product to be installed. (1: intra-mart WebPlatform (Resin) 2: intra-mart WebPlatform (JBoss) 3: intra-mart AppFramework 4: intra-mart DebugServer)?	**2**
Select the type of product to be installed. (1: Standard 2: Advanced 3: Enterprise)?	**1**
Install Server Module (y/n)?	**y**
Install IM-Administrator (y/n)?	**y**
Enter the home directory of JDK	**Enter the full path**
Enter the location of installation	**Enter the full path (This location is referred to as "%im_path%")**
Select the configuration of Server Module. (1: Create standalone environment 2: Create distributed environment)?	**2**
Select the module to be installed. (1: Server Manager and Service Platform 2: Server Manager only 3: Service Platform only)?	**3**
Select a service of Service Platform (1: Application Runtime Service 2: Select other services)?	**2**
Install Shared Memory Service (y/n)?	**n**
Install Permanent Data Service (y/n)?	**n**
Install Resource Service (y/n)?	**n**
Install Storage Service (y/n)?	**y**
Install Serialization Service (y/n)?	**n**
Install Schedule Service (y/n)?	**n**
Select the character code of Server Module. (1: Windows-31J 2: Shift_JIS 3: EUC-JP 4: UTF-8)?	**1(*5)**
Enter the address of the host	**192.168.0.3 (*1)**
Enter the Port Number to be used by Service Platform	**49150**
Enter the address of Server Manager	**192.168.0.1 (*1)**
Enter the Port Number of Server Manager	**49152**
Enter Service Platform ID	**192.168.0.3:49150 (*2)**
Default Heap Size of Service Platform (-Xms) [MB] (Example：64)	**64**
Maximum Heap Size of Service Platform (-Xmx) [MB] (Example：128)	**128**
Install a sample (y/n)?	**n**
Register the following Start Menu	**intra-mart WebPlatform Ver6.1**
Is this configuration OK (y/n)?	**y**

Please refer to **"3.2.3.1 Notes"** about details of **(*1), (*2) and (*5).**

3.2.3.3.3.4 Installing into Server 4

■ **Install all other services (except for Application Runtime and Storage Service).**

(1) Start up Installer. (Please refer to 3.2.1 Starting Up and Operating Installer for details)

(2) Proceed with the installation in the following procedure. (The following example is based on Windows, Standard Version)

Procedures	Inputs
Select the product to be installed. (1: intra-mart WebPlatform (Resin) 2: intra-mart WebPlatform (JBoss) 3: intra-mart AppFramework 4: intra-mart DebugServer)?	**2**
Select the type of product to be installed. (1: Standard 2: Advanced 3: Enterprise)?	**1**
Install Server Module (y/n)?	**y**
Install IM-Administrator (y/n)?	**y**
Enter the home directory of JDK	**Enter the full path**
Enter the location of installation	**Enter the full path (This location is referred to as "%im_path%")**
Select the configuration of Server Module. (1: Create standalone environment 2: Create distributed environment)?	**2**
Select the module to be installed. (1: Server Manager and Service Platform 2: Server Manager only 3: Service Platform only)?	**3**
Select a service of Service Platform (1: Application Runtime Service 2: Select other services)?	**2**
Install Shared Memory Service (y/n)?	**y**
Install Permanent Data Service (y/n)?	**y**
Install Resource Service (y/n)?	**y**
Install Storage Service (y/n)?	**n**
Install Serialization Service (y/n)?	**y**
Install Schedule Service (y/n)?	**y**
Select the character code of Server Module. (1:Windows-31J 2:SJIS 3:EUC-JP 4:UTF8)?	**1(*5)**
Enter the host address	**192.168.0.4 (*1)**
Enter the Port Number to be used by Service Platform	**49150**
Enter the address of Server Manager	**192.168.0.1 (*1)**
Enter the Port Number of Server Manager	**49152**
Enter Service Platform ID	**192.168.0.4:49150 (*2)**
Enter Application Runtime URL	**http://192.168.0.2:8080/imart/HTTPActionEventListener (*3)**
Default Heap Size of Service Platform (-Xms) [MB] (Example：64)	**64**
Maximum Heap Size of Service Platform (-Xmx) [MB] (Example：128)	**128**
Install a sample (y/n)?	**n**
Register the following Start Menu	**intra-mart WebPlatform Ver6.1**
Is this configuration OK (y/n)?	**y**

Please refer to **"3.2.3.1 Notes"** about details of **(*1), (*2), (*3) and (*5).**

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3.2.3.4 intra-mart AppFramework Machine Configuration

In this chapter, the Machine Configuration shown below is the example that is used when the product is installed.

- ■ OS : Windows
- ■ Server modules' character code : Windows-31J
- ■ Character code to be transmitted to the Web Server. : Windows-31J
- ■ Type of products : AFW Standard

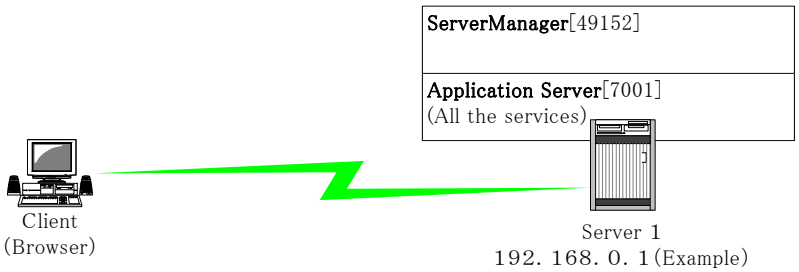
If installed using other type of OS, please select relevant character code for the OS.
(If you **establish multilingual system**, please select **"UTF-8"** as **"Server Module Character Code"** and **"Character Code to be transmitted to Web Browser"**.)

* In case of distributed Machine Configuration ("Machine Configuration2 – Machine Configuration3" in the following example), you are not able to install other services on JBoss running the Application Runtime.

3.2.3.4.1 Machine Configuration 1

■ **Running on One Server**

Install **Application Server** and **all services** to Server.



[ ] means Port Number.

3.2.3.4.1.1 Installation into Server 1

■ **Install all services**

(1) Start up Installer. (Please refer to 3.2.1 Starting Up and Operating Installer for details)

(2) Proceed with the installation in the following procedure. (The following example is based on Windows, Standard Version)

Procedures	Inputs
Select the product to be installed. (1: intra-mart WebPlatform (Resin) 2: intra-mart WebPlatform (JBoss) 3: intra-mart AppFramework 4: intra-mart DebugServer)?	**3**
Select the type of product to be installed. (1: Standard 2: Advanced 3: Enterprise)?	**1**
Install Server Module (y/n)?	**y**
Install IM-Administrator (y/n)?	**y**
Enter the home directory of JDK	**Enter the full path (*6)**
Enter the location of installation	**Enter the full path (This location is referred to as "%im_path%")**
Select the configuration of Server Module. (1: Create standalone environment 2: Create distributed environment)?	**1**
Select the character code of Server Module. (1: Windows-31J 2: Shift_JIS 3: EUC-JP 4: UTF-8)?	**1(*5)**
Select the character code to be transmitted to the Web Server (1: Windows-31J 2: Shift_JIS 3: EUC-JP 4: UTF-8)?	**1(*5)**
Enter the host address	**192.168.0.1 (*1)**
Enter the Port Number to be used by Server Manager	**49152**
Enter Service Platform ID	**APP:192.168.0.1 (*2)**
Enter Application Runtime URL	**http://192.168.0.1:7001/imart/HTTPActionEventListener (*3)**
Install a sample (y/n)?	**n**
Register the following Start Menu	**intra-mart AppFramework Ver6.1**
Is this configuration OK (y/n)?	**y**

Please refer to **"3.2.3.1 Notes"** about details of **(*1), (*2), (*3), (5) and (*6).**

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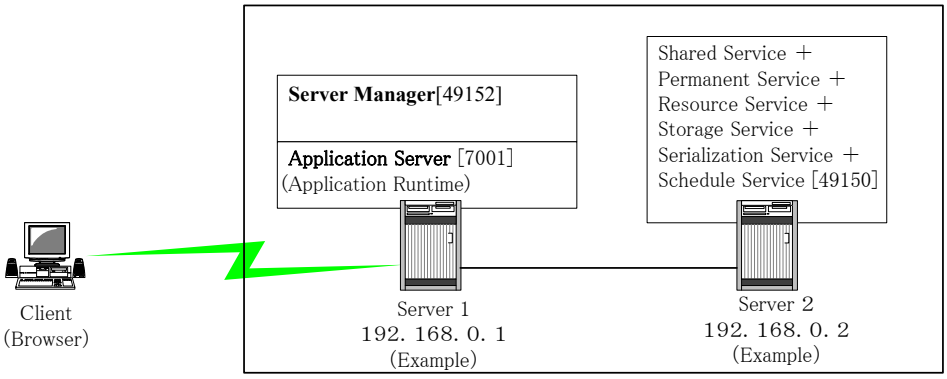
3.2.3.4.2 Machine Configuration2

■ **Running on 2 Servers**

Install **Application Runtime** and **Server Manager** to Server 1.

Install all **other services (except for Application Runtime)** to Server 2.



[ ] means Port Number.
+ means that it works on the same server.

3.2.3.4.2.1 Installing into Server 1

■ **Install Server Manager and Application Runtime**

(1) Start up Installer. (Please refer to 3.2.1 Starting Up and Operating Installer for details)

(2) Proceed with the installation in the following procedure. (The following example is based on Windows, Standard Version)

Procedures	Inputs
Select the product to be installed. (1: intra-mart WebPlatform (Resin) 2: intra-mart WebPlatform (JBoss) 3: intra-mart AppFramework 4: intra-mart DebugServer)?	**3**
Select the type of product to be installed. (1: Standard 2: Advanced 3: Enterprise)?	**1**
Install Server Module (y/n)?	**y**
Install IM-Administrator (y/n)?	**y**
Enter the home directory of JDK	**Enter the full path (*6)**
Enter the location of installation	**Enter the full path (This location is referred to as "%im_path%")**
Select the configuration of Server Module. (1: Create standalone environment 2: Create distributed environment)?	**2**
Select the module to be installed. (1: Server Manager and Service Platform 2: Server Manager only 3: Service Platform only)?	**1**
Select a service of Service Platform (1: Application Runtime Service 2: Select other services)?	**1**
Select the character code of Server Module. (1: Windows-31J 2: Shift_JIS 3: EUC-JP 4: UTF-8)?	**1(*5)**
Select the character code to be transmitted to the Web Server (1: Windows-31J 2: Shift_JIS 3: EUC-JP 4: UTF-8)?	**1(*5)**
Enter the host address	**192.168.0.1 (*1)**
Enter the Port Number to be used by Server Manager	**49152**
Enter Service Platform ID	**APP:192.168.0.1 (*2)**
Install a sample (y/n)?	**n**
Register the following Start Menu	**intra-mart AppFramework Ver6.1**
Is this configuration OK (y/n)?	**y**

Please refer to **"3.2.3.1 Notes"** about details of **(*1), (*2), (*5) and (*6).**

3.2.3.4.2.2 Installing into Server 2

■ **Install all other services (except for Application Runtime)**

(1) Start up Installer. (Please refer to 3.2.1 Starting Up and Operating Installer for details)

(2) Proceed with the installation in the following procedure. (The following example is based on Windows, Standard Version)

Procedures	Inputs
Select the product to be installed. (1: intra-mart WebPlatform (Resin) 2: intra-mart WebPlatform (JBoss) 3: intra-mart AppFramework 4: intra-mart DebugServer)?	**3**
Select the type of product to be installed. (1: Standard 2: Advanced 3: Enterprise)?	**1**
Install Server Module (y/n)?	**y**
Install IM-Administrator (y/n)?	**y**
Enter the home directory of JDK	**Enter the full path**
Enter the location of installation	**Enter the full path (This location is referred to as "%im_path%")**
Select the configuration of Server Module. (1: Create standalone environment 2: Create distributed environment)?	**2**
Select the module to be installed. (1: Server Manager and Service Platform 2: Server Manager only 3: Service Platform only)?	**3**
Select a service of Service Platform (1: Application Runtime Service 2: Select other services)?	**2**
Install Shared Memory Service (y/n)?	**y**
Install Permanent Data Service (y/n)?	**y**
Install Resource Service (y/n)?	**y**
Install Storage Service (y/n)?	**y**
Install Serialization Service (y/n)?	**y**
Install Schedule Service (y/n)?	**y**
Select the character code of Server Module. (1: Windows-31J 2: Shift_JIS 3: EUC-JP 4: UTF-8)?	**1(*5)**
Enter the host address	**192.168.0.2 (*1)**
Enter the Port Number to be used by Service Platform	**49150**
Enter the address of Server Manager	**192.168.0.1 (*1)**
Enter the Port Number of Server Manager	**49152**
Enter Service Platform ID	**192.168.0.2:49150 (*2)**
Enter Application Runtime URL	**http://192.168.0.1:7001/imart/HTTPActionEventListener (*3)**
Default Heap Size of Service Platform (-Xms) [MB] (Example：64)	**64**
Maximum Heap Size of Service Platform (-Xmx) [MB] (Example：128)	**128**
Install a sample (y/n)?	**n**
Register the following Start Menu	**intra-mart AppFramework Ver6.1**
Is this configuration OK (y/n)?	**y**

Please refer to **"3.2.3.1 Notes"** about details of **(*1), (*2), (*3) and (*5).**

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3.2.3.4.3 Machine Configuration3

■ **Running on 4 Servers**

Install **Server Manager** to Server 1.

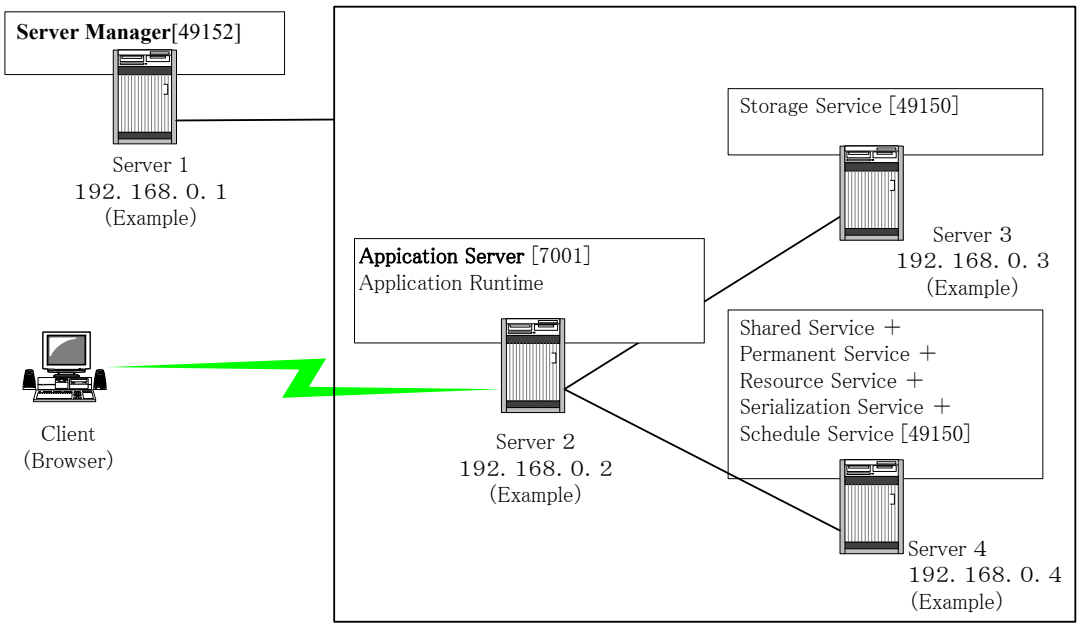
Install **Application Runtime** to Server 2.

Install **Storage Service** to Server 3.

Install all **other services** to Server 4.

* If the utilization of Storage Service is low, it can be installed to Server 4.

* Depending on the access frequency and the contents of application, Server 2 or 3 can be shared with DB server.



[ ] means Port Number.
+ means that it works on the same server.

3.2.3.4.3.1 Installing into Server 1

■ **Install Server Manager**

(1) Start up Installer. (Please refer to 3.2.1 Starting Up and Operating Installer for details)

(2) Proceed with the installation in the following procedure. (The following example is based on Windows, Standard Version)

Procedures	Inputs
Select the product to be installed. (1: intra-mart WebPlatform (Resin) 2: intra-mart WebPlatform (JBoss) 3: intra-mart AppFramework 4: intra-mart DebugServer)?	**3**
Select the type of product to be installed. (1: Standard 2: Advanced 3: Enterprise)?	**1**
Install Server Module (y/n)?	**y**
Install IM-Administrator (y/n)?	**y**
Enter the home directory of JDK	**Enter the full path**
Enter the location of installation	**Enter the full path (This location is referred to as "%im_path%")**
Select the configuration of Server Module. (1: Create standalone environment 2: Create distributed environment)?	**2**
Select the module to be installed. (1: Server Manager and Service Platform 2: Server Manager only 3: Service Platform only)?	**2**
Select the character code of Server Module. (1: Windows-31J 2: Shift_JIS 3: EUC-JP 4: UTF-8)?	**1(*5)**
Select the character code to be transmitted to the Web Server (1: Windows-31J 2: Shift_JIS 3: EUC-JP 4: UTF-8)?	**1(*5)**
Enter the Port Number to be used by Server Manager	**49152**
Install a sample (y/n)?	**n**
Register the following Start Menu	**intra-mart AppFramework Ver6.1**
Is this configuration OK (y/n)?	**y**

Please refer to **"3.2.3.1 Notes"** about details of **(*5).**

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3.2.3.4.3.2 Installing into Server 2

■ **Install Application Runtime**

(1) Start up Installer. (Please refer to 3.2.1 Starting Up and Operating Installer for details)

(2) Proceed with the installation in the following procedure. (The following example is based on Windows, Standard Version)

Procedures	Inputs
Select the product to be installed. (1: intra-mart WebPlatform (Resin) 2: intra-mart WebPlatform (JBoss) 3: intra-mart AppFramework 4: intra-mart DebugServer)?	**3**
Select the type of product to be installed. (1: Standard 2: Advanced 3: Enterprise)?	**1**
Install Server Module (y/n)?	**y**
Install IM-Administrator (y/n)?	**y**
Enter the home directory of JDK	**Enter the full path (*6)**
Enter the location of installation	**Enter the full path (This location is referred to as "%im_path%")**
Select the configuration of Server Module. (1: Create standalone environment 2: Create distributed environment)?	**2**
Select the module to be installed. (1: Server Manager and Service Platform 2: Server Manager only 3: Service Platform only)?	**3**
Select a service of Service Platform (1: Application Runtime Service 2: Select other services)?	**1**
Select the character code of Server Module. (1: Windows-31J 2: Shift_JIS 3: EUC-JP 4: UTF-8)?	**1(*5)**
Select the character code to be transmitted to the Web Server (1: Windows-31J 2: Shift_JIS 3: EUC-JP 4: UTF-8)?	**1(*5)**
Enter the host address	**192.168.0.2 (*1)**
Enter the address of Server Manager	**192.168.0.1 (*1)**
Enter the Port Number of Server Manager	**49152**
Enter Service Platform ID	**APP:192.168.0.2 (*2)**
Install a sample (y/n)?	**n**
Register the following Start Menu	**intra-mart AppFramework Ver6.1**
Is this configuration OK (y/n)?	**y**

Please refer to **"3.2.3.1 Notes"** about details of **(*1), (*2), (*5) and (*6).**

3.2.3.4.3.3 Installing into Server 3

■ **Install Storage Service**

(1) Start up Installer. (Please refer to 3.2.1 Starting Up and Operating Installer for details)

(2) Proceed with the installation in the following procedure. (The following example is based on Windows,

(3) Standard Version)

Procedures	Inputs
Select the product to be installed. (1: intra-mart WebPlatform (Resin) 2: intra-mart WebPlatform (JBoss) 3: intra-mart AppFramework 4: intra-mart DebugServer)?	**3**
Select the type of product to be installed. (1: Standard 2: Advanced 3: Enterprise)?	**1**
Install Server Module (y/n)?	**y**
Install IM-Administrator (y/n)?	**y**
Enter the home directory of JDK	**Enter the full path**
Enter the location of installation	**Enter the full path (This location is referred to as "%im_path%")**
Select the configuration of Server Module. (1: Create standalone environment 2: Create distributed environment)?	**2**
Select the module to be installed. (1: Server Manager and Service Platform 2: Server Manager only 3: Service Platform only)?	**3**
Select a service of Service Platform (1: Application Runtime Service 2: Select other services)?	**2**
Install Shared Memory Service (y/n)?	**n**
Install Permanent Data Service (y/n)?	**n**
Install Resource Service (y/n)?	**n**
Install Storage Service (y/n)?	**y**
Install Serialization Service (y/n)?	**n**
Install Schedule Service (y/n)?	**n**
Select the character code of Server Module. (1: Windows-31J 2: Shift_JIS 3: EUC-JP 4: UTF-8)?	**1(*5)**
Enter the host address	**192.168.0.3 (*1)**
Enter the Port Number to be used by Service Platform	**49150**
Enter the address of Server Manager	**192.168.0.1 (*1)**
Enter the Port Number of Server Manager	**49152**
Enter Service Platform ID	**192.168.0.3:49150 (*2)**
Default Heap Size of Service Platform (-Xms) [MB] (Example：64)	**64**
Maximum Heap Size of Service Platform (-Xmx) [MB] (Example：128)	**128**
Install a sample (y/n)?	**n**
Register the following Start Menu	**intra-mart AppFramework Ver6.1**
Is this configuration OK (y/n)?	**y**

Please refer to **"3.2.3.1 Notes"** about details of **(*1), (*2) and (*5).**

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3.2.3.4.3.4 Installing into Server 4

■ **Install all other services (except for Application Runtime and Storage Service)**

(1) Start up Installer. (Please refer to 3.2.1 Starting Up and Operating Installer for details)

(2) Proceed with the installation in the following procedure. (The following example is based on Windows, Standard Version)

Procedures	Inputs
Select the product to be installed. (1: intra-mart WebPlatform (Resin) 2: intra-mart WebPlatform (JBoss) 3: intra-mart AppFramework 4: intra-mart DebugServer)?	**3**
Select the type of product to be installed. (1: Standard 2: Advanced 3: Enterprise)?	**1**
Install Server Module (y/n)?	**y**
Install IM-Administrator (y/n)?	**y**
Enter the home directory of JDK	**Enter the full path**
Enter the location of installation	**Enter the full path (This location is referred to as "%im_path%")**
Select the configuration of Server Module. (1: Create standalone environment 2: Create distributed environment)?	**2**
Select the module to be installed. (1: Server Manager and Service Platform 2: Server Manager only 3: Service Platform only)?	**3**
Select a service of Service Platform (1: Application Runtime Service 2: Select other services)?	**2**
Install Shared Memory Service (y/n)?	**y**
Install Permanent Data Service (y/n)?	**y**
Install Resource Service (y/n)?	**y**
Install Storage Service (y/n)?	**n**
Install Serialization Service (y/n)?	**y**
Install Schedule Service (y/n)?	**y**
Select the character code of Server Module. (1: Windows-31J 2: Shift_JIS 3: EUC-JP 4: UTF-8)?	**1(*5)**
Enter the host address	**192.168.0.4 (*1)**
Enter the Port Number to be used by Service Platform	**49150**
Enter the address of Server Manager	**192.168.0.1 (*1)**
Enter the Port Number of Server Manager	**49152**
Enter Service Platform ID	**192.168.0.4:49150 (*2)**
Enter Application Runtime URL	**http://192.168.0.2:7001/imart/HTTPActionEventListener (*3)**
Default Heap Size of Service Platform (-Xms) [MB] (Example：64)	**64**
Maximum Heap Size of Service Platform (-Xmx) [MB] (Example：128)	**128**
Install a sample (y/n)?	**n**
Register the following Start Menu	**intra-mart AppFramework Ver6.1**
Is this configuration OK (y/n)?	**y**

Please refer to **"3.2.3.1 Notes"** about details of **(*1), (*2), (*3) and (*5).**

3.2.3.5 Other Machine Configuration

This product is designed to allow the various services to be set up on each machine in any way.

As long as the minimum services required are running, it can be operated regardless of which service is on which Service Platform.

■ **Number of Each Service Required for Operation**

Web Server Connector×0～∞ (in case of IWP (Resin) only)

Server Manager×1

Application Runtime×1～∞ (In case of IWP (JBoss), Application Server)

Shared Memory Service×1～2
Permanent Data Service×1～2
Resource Service×1～2
Storage Service×1～2
Serialization Service×1～2

These services can have stand-by **Secondary Service.**
(Please refer to **"3.2.3.5.3 In Case of Setting Up Standby Unit for Each Service")**

Schedule Service×0～2 (if not used, there is no need for installation.)

■ **Number of Minimum Services Required for Operation**

Server Manager×1

Application Runtime×1 (In case of IWP (JBoss), Application Server)

Shared Memory Service×1

Permanent Data Service×1

Resource Service×1

Storage Service×1

Serialization Service×1

The machine configuration explained by far is only with reference to the "**Machine Configuration Example**".

It is possible to run with a different machine configuration other than those mentioned above.

It is recommended to create a machine configuration diagram based on the machine configuration example, prior to the installation.

The point in creating the machine configuration diagram is to clearly state the IP address of each machine, port number of each Service Platform, and name of each service which run on Service Platform.

The installation process would be smooth, as long as the above-mentioned are clearly defined.

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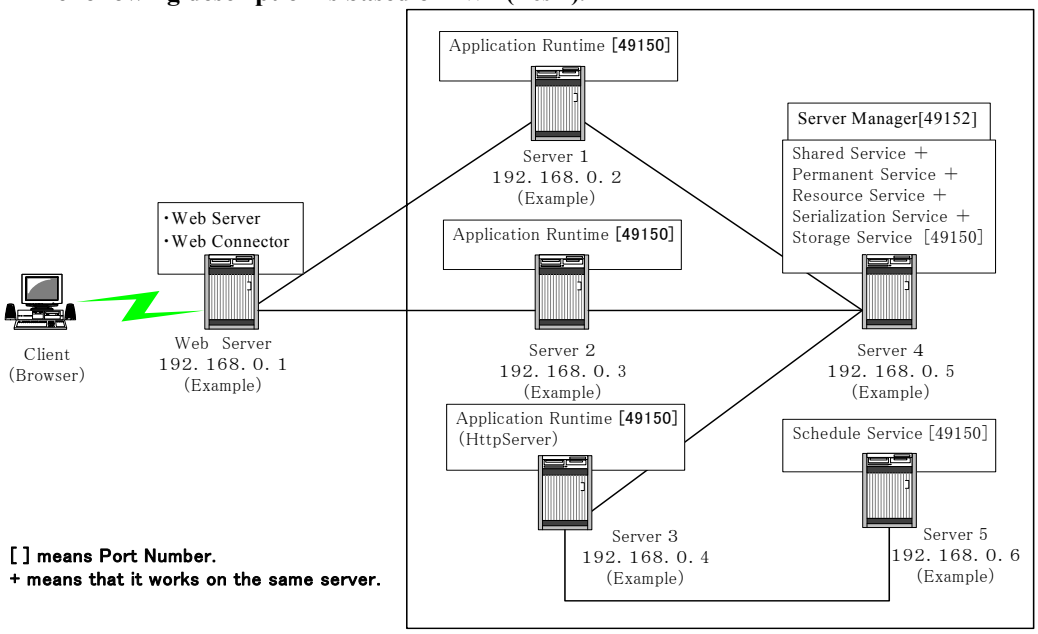
3.2.3.5.1 Server Configuration exclusive for Batch Program Execution

*** The following description is based on IWP (Resin).**

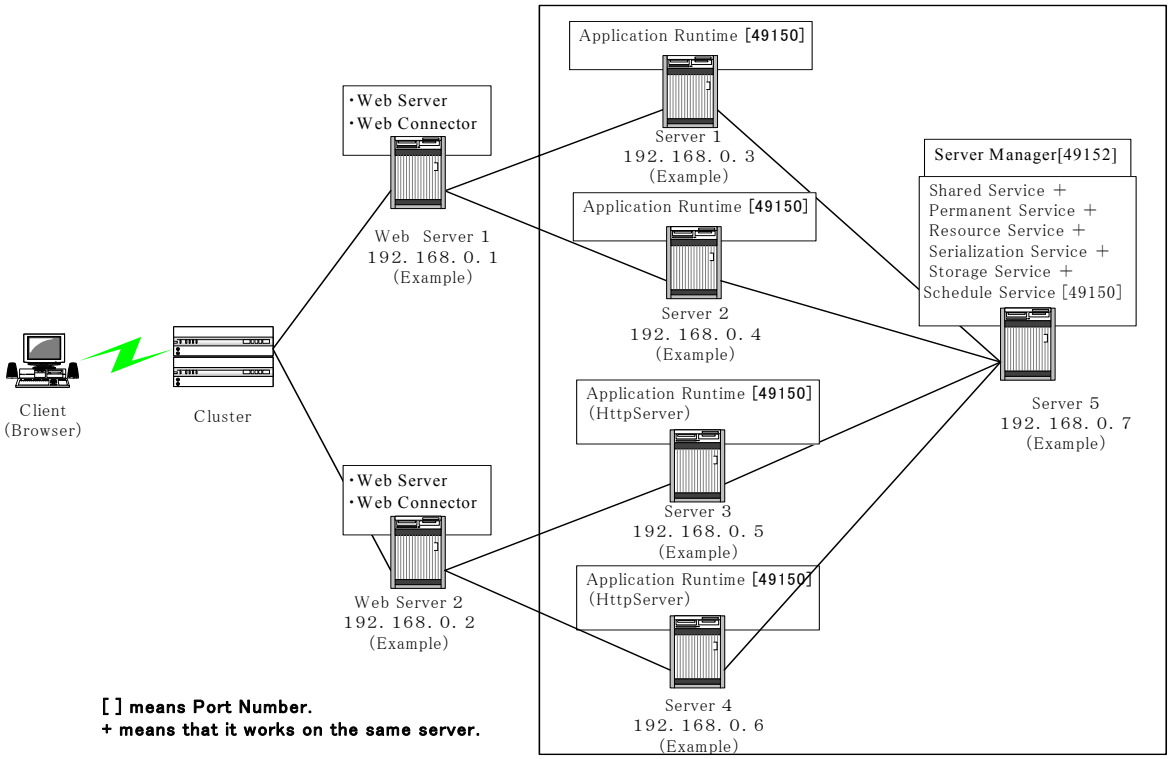


*** Designate the Server 3 exclusive for Batch Program Execution.**

3.2.3.5.2 Web Server Distributed Configuration derived from Commercial Cluster Product.

***The description here is applicable exclusively for IWP (Resin).**

In this case, the session failover method may require using <Memory-to-RDB method>.



3.2.3.5.3 In Case of Setting up Standby Unit for Each Service

Each service may be setup to run a **secondary service**.
As a result, the secondary service can take over processing even if the primary service is down.

The above-mentioned examples of Machine Configuration have so far installed only one service (except for ApplicationRuntime) per machine. However, if the same service is installed in another server, that information will be reported to Server Manager, which will automatically set up that server as a secondary service.

The order of primary and secondary services should be:
the first service to be activated will be set as **primary**, while the one activated later will be **secondary**.

If the secondary service is set up with Permanent Data Service, Resource Service or Storage Service, a specified directory must be shared.

- **How to Share Disk**

  "Shared Directory" in the table below is shared among multiple computers.
  (Sharing will be done using network drive For Windows, and NFS or Samba in case of UNIX.)
  In case of setting up a system that utilize **Fault Tolerance Function** by running the same service on a multiple number of machines, all services must be able to read and write the common data.

Service	Directory to be shared	Setting items on imart.xml
Permanent Data Service	<%im_path%>/treasure	intra-mart/platform/permanent/treasure-root
Resource Service	<%im_path%>/pages	intra-mart/platform/resource/jssp /source-path/・・・・/ directory
Storage Service	<%im_path%>/storage	intra-mart/platform/storage/file-root

If the shared directory is located in a different directory from that of the service, the target directory can be changed.
Edit the settings file **<%im_path%>/conf/imart.xml**, which is saved in each service's target installation directory.
By specifying the directory with absolute path on each service's "Settings Items on imart.xml " shown above, it is possible to assign a specific directory as a data storage directory.
For example, by specifying the directory that is configured with network drive, it is possible to share the data with other computers.
* As for the details on each settings item, please refer to the Settings Guide <Service & Platform>.

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3.2.3.5.4 About Session Failover

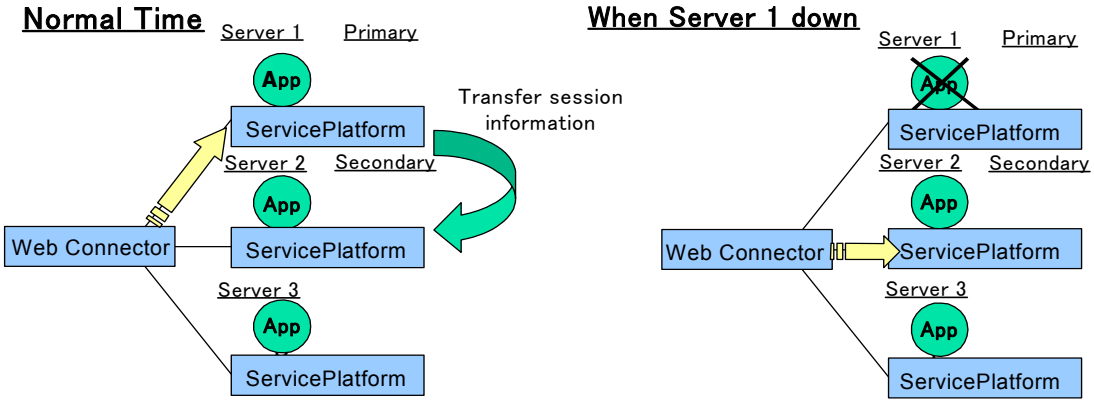
*** The description here is applicable exclusively for IWP (Resin).**

By setting up a multiple number of Application Runtime, it is possible to have HttpSession (login session) fail-over.

(* Please refer to "**How to Setup HttpSession Fault Tolerance**" under <Http> section of Configuration Guide.)

There are 2 methods for session failover with IWP (Resin).

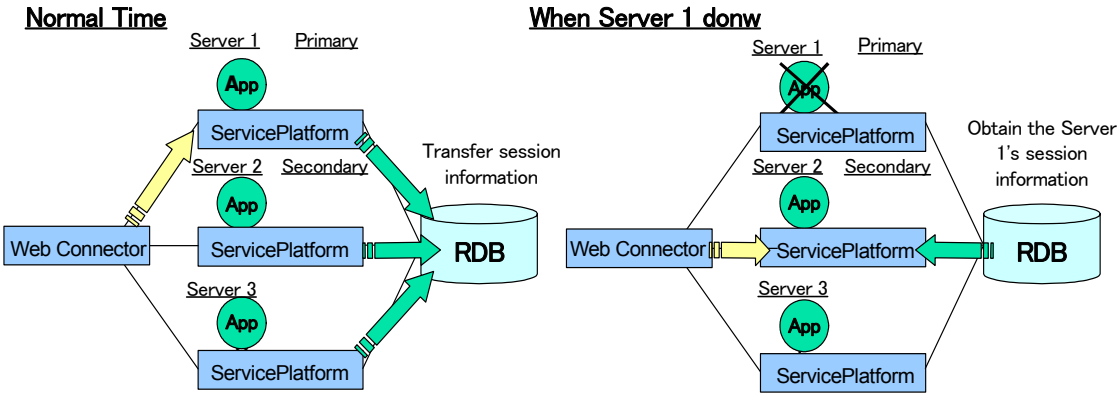
■ **Memory-to-Memory Method**



The session information will be transferred from **Primary** server to **Secondary** server. **For Server 1**, Server 2 will be the secondary, while **for Server 2**, Server 3 will be the secondary, and for **Server 3**, Server 1 will be the secondary.

Once Server 1 is down, Web connector changes its access point to Server 2, with transferring the session information to Server 2 and makes it accessible like Server 1. However, if both Server 1 and 2 are down, the session information will be lost.

■ **Memory-to-RDB Method**



The session information will be shared within RDB.

Once Server 1 is down, Web connector changes its access point to the Server 2. Server 2 will get Server 1's session information from RDB to make it accessible just like Server 1. Unlike **Memory-to-Memory Method**, even if Server 2 is also down, the session continues to be shared. However, due to the use of RDB, its response time will be slower.

3.2.4 About License Registration

Please follow the procedure below to register the license.

* License registration is not required in case of using Trial version.

After registering the license, the entire Server needs to be rebooted.

The following description refers to the directory installed with Server Manager as <%**im_path**%>.

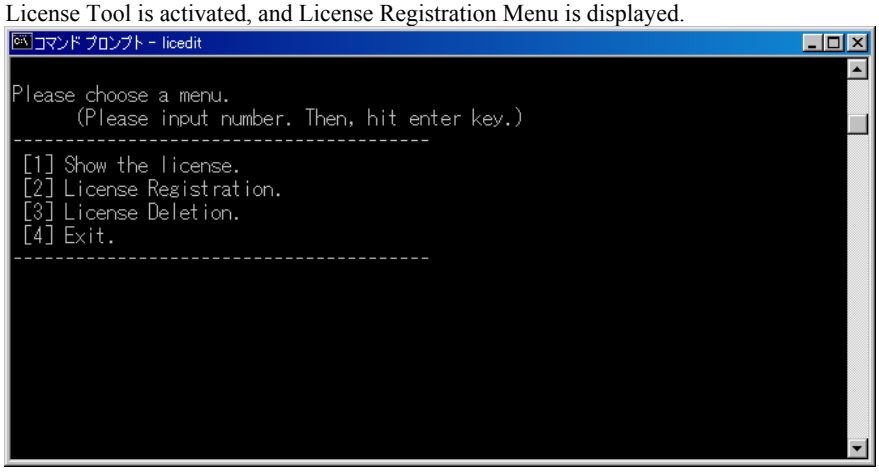
(1) **Go to <%im_path%>/bin/tools** and execute the following commands.

(Shut down Server Manager at this time.)

For Windows : **licedit.bat**

For UNIX : **licedit.sh**

(2) License Tool is activated, and License Registration Menu is displayed.



(3) Select [2] from the Menu and register License Key.

If it is registered correctly, the registered license should be displayed.

(4) Select [1] from the Menu to browse License Tool.

(5) Select [3] from the Menu to delete License Tool.

Please select a number of license key numbers to be deleted, while registered licenses are shown.

(6) Select [4] from the Menu to end License Tool.

(7) Reboot the entire Server.

That's all for post- installation license registration.

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3.2.5 About Silent Mode of Installer

Installer of intra-mart includes "Silent Mode" to reproduce installation procedure. Below are procedures of installation by Silent Mode.

(1) Output installation setting procedures into a file

(Please refer to "3.2.5.1 Output installation setting into a file" for details)

(2) Load the setting files and install them

(Please refer to "エラー! 参照元が見つかりません。 Load the setting files" and install them for details)

3.2.5.1 Output installation setting procedures into a file

When installer is started up, installation setting procedures can be saved by specifying option "**-s Setting file name**".

(1) Confirm whether java command has a path.

(2) Copy iwp_afw/install/setup.jar in this product CD-ROM in an adequate directory.

(3) Move to a directory containing copied seup.jar in the console

(4) Enter following command in the console

```
java –jar ./setup.jar -s Setting file name
```

*Setting file name is specified by the relative path from a directory containing setup.jar.

(5) Installer is activated (Install it in interactive mode in the console)

(6) Input a value according to the instruction of installer.

(7) At the end of the procedures, setting items are displayed. If it is OK for you, input "y".

(8) Installation is started.

Above mentioned installation procedures are output to the setting file.

3.2.5.2 Load the setting files and install them

By specifying option **"-f setting file name"** at the installation, installation automatically starts according to the procedures which is set in "3.2.5.1 Output installation setting into a file".

(1) Move to a directory containing copied seup.jar in the console

(2) Input following command in the console

```
java –jar ./setup.jar -f Setting file name
```

*Setting file name is specified as the relative path from a directory containing setup.jar.

3.2.6 Interaction with Web Service (Axis)

The description in this chapter is applicable **exclusively for IWP (Resin).**

The following description explains how to run Web Service server on IWP. As for the Web Service server, Axis provided by Apache Software Foundation will be used.

(Notes)

・The method employed here is a simplified version of the intra-mart and Axis interaction.
Please refer to Axis website (http://ws.apache.org/axis/) for further details on Axis.

3.2.6.1 Preparation

The followings are requirements

- intra-mart WebPlatform Ver6.1
- Apache Axis 1.4

3.2.6.1.1 intra-mart WebPlatform Ver6.1

Prepare intra-mart WebPlatform Ver6.1 Installer.

3.2.6.1.2 Apache Axis 1.4

(1) Please download Axis 1.4 from the following URL.
http://www.apache.org/dyn/closer.cgi/ws/axis/1_4/ (as of 31/07/2007)
Assuming the downloaded file is “axis-bin-1_4.zip”.

(2) Expand the axis-bin-1_4.zip file at any appropriate location using a Zip file extracting software. If the zip file is expanded into “C:¥axis” directory in Windows, the result will be indicated as shown in “Diagram 3-1 Result of Axis Expansion“. In this guide, the Axis root directory (C:¥axis¥axis-1_4, in this case) will be stated as <AXIS_HOME>.

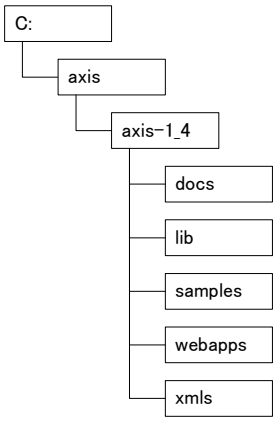

Diagram 3-1 Result of Axis Expansion

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3.2.6.2 Installation

3.2.6.2.1 intra-mart WebPlatform installation

Please install IWP so that it takes on the following environment. The details of installation method will be omitted here.

- Stand alone
- Use intra-mart HTTP server (do not use Web Server Connector)

In this guide, IWP's installation path will be stated as <IMART_HOME>.

It is presumed that the context path of intra-mart Application Runtime is set as [/imart], while the port number of the server is [8080]. They should be same values to the ones when IWP is installed as default. If these values were changed, please change the contents of this section accordingly.

3.2.6.2.2 Building in Axis

(1) Check if IWP is terminated.

(2) Copy the below files found in "*<AXIS_HOME>*/webapps/axis" directory to be right under the "*<IMART_HOME>*/doc/imart" directory.

- ✧ EchoHeaders.jws
- ✧ fingerprint.jsp
- ✧ happyaxis.jsp
- ✧ i18nLib.jsp
- ✧ index.html
- ✧ index.jsp
- ✧ SOAPMonitorApplet.java
- ✧ StockQuoteService.jws

(3) Copy the "*<AXIS_HOME>*/webapps/axis/WEB-INF/users.lst" file to be right under the"<IMART_HOME>/doc/imart/WEB-INF" directory.
(Reminder: **Do not copy web.xml**. If copied, BMv5 will not be able to start up properly.)

(4) Copy the following directories under the "*<AXIS_HOME>*/webapps/axis/WEB-INF" directory to be right under the "*<IMART_HOME>*/doc/imart/WEB-INF" directory and overwrite the content of this directory.

- ✧ classes
- ✧ lib

(5) Add the contents shown in "3-1 Editing web.xml" to *<IMART_HOME>*/doc/imart/WEB-INF/web.xml.
(This content can also be copied from *<AXIS_HOME>*/webapps/axis/WEB-INF/web.xml.)

List 3-1 Editing web.xml

```
            :
  <servlet>
     <servlet-name>AxisServlet</servlet-name>
     <display-name>Apache-Axis Servlet</display-name>
     <servlet-class>
           org.apache.axis.transport.http.AxisServlet
     </servlet-class>
  </servlet>

  <servlet>
     <servlet-name>AdminServlet</servlet-name>
     <display-name>Axis Admin Servlet</display-name>
     <servlet-class>
           org.apache.axis.transport.http.AdminServlet
     </servlet-class>
     <load-on-startup>100</load-on-startup>
  </servlet>

  <servlet>
     <servlet-name>SOAPMonitorService</servlet-name>
     <display-name>SOAPMonitorService</display-name>
     <servlet-class>
           org.apache.axis.monitor.SOAPMonitorService
     </servlet-class>
     <init-param>
        <param-name>SOAPMonitorPort</param-name>
        <param-value>5001</param-value>
     </init-param>
     <load-on-startup>100</load-on-startup>
  </servlet>
            :
            :
  <servlet-mapping>
     <servlet-name>AxisServlet</servlet-name>
     <url-pattern>/servlet/AxisServlet</url-pattern>
  </servlet-mapping>

  <servlet-mapping>
     <servlet-name>AxisServlet</servlet-name>
     <url-pattern>*.jws</url-pattern>
  </servlet-mapping>

  <servlet-mapping>
     <servlet-name>AxisServlet</servlet-name>
     <url-pattern>/services/*</url-pattern>
  </servlet-mapping>

  <servlet-mapping>
     <servlet-name>SOAPMonitorService</servlet-name>
     <url-pattern>/SOAPMonitor</url-pattern>
  </servlet-mapping>

<!-- uncomment this if you want the admin servlet -->
<!--
  <servlet-mapping>
     <servlet-name>AdminServlet</servlet-name>
     <url-pattern>/servlet/AdminServlet</url-pattern>
  </servlet-mapping>
-->
            :
            :
```


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```
   <!-- currently the W3C havent settled on a media type for WSDL;
   http://www.w3.org/TR/2003/WD-wsdl12-20030303/#ietf-draft
   for now we go with the basic 'it's XML' response -->
<mime-mapping>
   <extension>wsdl</extension>
     <mime-type>text/xml</mime-type>
</mime-mapping>

<mime-mapping>
   <extension>xsd</extension>
   <mime-type>text/xml</mime-type>
</mime-mapping>
            :

<welcome-file-list id="WelcomeFileList" >
   <welcome-file>index.html</welcome-file>
   <welcome-file>index.jsp</welcome-file>
   <welcome-file>index.jws</welcome-file>
</welcome-file-list>
            :
            :
```

Please delete id attribute.

(when copied from <AXIS_HOME>/webapps/axis/WEB-INF/web.xml)

3.2.6.2.3 Installation Confirmation

(1) Start up IWP.

(2) Access the following address on a web browser to check if Axis is installed on IWP.

(3) (If the context path is “/imart”) HThttp://<hostTH name>:<port number>/imart/

(4) If an error occurred, check if there are any errors in the content and correct accordingly. As for libraries with warning, please copy them to <*IMART_HOME*>/doc/imart/WEB-INF/lib when necessary. This section ignores any warning.

3.2.6.3 Sample Execution

This section describes how to execute the sample attached to Axis.

3.2.6.3.1 Prerequisites

The followings are the prerequisites for the use of the samples.

- Use a console different from IWP as a Web Service client.
- Web Service server and client are both on the same machine.
- JDK 1.4.2 or above version needs to be installed.

3.2.6.3.2 Preparation

Add the following libraries on the console to the class path used by Java.

- <AXIS_HOME>/lib/axis.jar
- <AXIS_HOME>/lib/axis-ant.jar
- <AXIS_HOME>/lib/commons-discovery-0.2.jar
- <AXIS_HOME>/lib/commons-logging-1.0.4.jar
- <AXIS_HOME>/lib/jaxrpc.jar
- <AXIS_HOME>/lib/log4j-1.2.8.jar
- <AXIS_HOME>/lib/saaj.jar
- <AXIS_HOME>/lib/wsdl4j-1.5.1.jar

The batch files examples, which are to be added to the class paths of the libraries above in Windows, are shown in "List 3-2 Client Environment Settings". Environment variables "JAVA_HOME" and "MART_HOME" represent installation paths *<AXIS_HOME>* and *<IMART_HOME>* respectively. Please modify according to the actual environment.

List 3-2 Client Environment Settings

```
set JAVA_HOME=C:¥jdk1.4.2_08
set AXIS_HOME=C:¥axis¥axis-1_4
set IMART_HOME=C:¥imart
set PATH=%JAVA_HOME%¥bin
set AXIS_LIB=%AXIS_HOME%¥lib
set IMART_LIB=%IMART_HOME%¥bin
set CLASSPATH=.
set CLASSPATH=%CLASSPATH%;%AXIS_LIB%¥axis.jar
set CLASSPATH=%CLASSPATH%;%AXIS_LIB%¥axis-ant.jar
set CLASSPATH=%CLASSPATH%;%AXIS_LIB%¥commons-discovery-0.2.jar
set CLASSPATH=%CLASSPATH%;%AXIS_LIB%¥commons-logging-1.0.4.jar
set CLASSPATH=%CLASSPATH%;%AXIS_LIB%¥jaxrpc.jar
set CLASSPATH=%CLASSPATH%;%AXIS_LIB%¥log4j-1.2.8.jar
set CLASSPATH=%CLASSPATH%;%AXIS_LIB%¥saaj.jar
set CLASSPATH=%CLASSPATH%;%AXIS_LIB%¥wsdl4j-1.5.1.jar
```

Please make sure to do the above-mentioned configuration, when Web Service client is used on the console hereafter.

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3.2.6.3.3 JWS File－Simple Deployment

This section describes the simplest deployment method.

The sample announces the class shown in “List 3-3 Web Service Sample (Calculator.java)” as Web Service.

(This source can also be found in <*AXIS_HOME*>/samples/userguide/example2/Calculator.java.)

List 3-3 Web Service Sample (Caluculator.java)

```
public class Calculator {
   public int add(int i1, int i2)
   {
      return i1 + i2;
   }

   public int subtract(int i1, int i2)
   {
      return i1 - i2;
   }
}
```

The registered Web Service will use this class to do simple addition and subtraction.

(1) Check if IWP is terminated.

(2) Copy the Java source file found in “List 3-3 Web Service Sample (Calculator.java)” to <*IMART_HOME*>/doc/imart.

(3) Change the copied file name to Calculator.jws.

(4) Restart IWP.

(5) Open “<*AXIS_HOME*>/samples/userguide/example2/CalcClient.java” with text editor.

(6) Modify and save the following section of CalcClient.java into an actual context path.

Before modification	String endpoint = "http://localhost:" + options.getPort() + "/**axis**/Calculator.jws";
After modification	String endpoint = "http://localhost:" + options.getPort() + "/**imart**/Calculator.jws";

(7) Go to <*AXIS_HOME*>/userguide/example2 on the console.

Start up the command found in “List 3-5 Example of Simplified Deployment Execution” on the console and compile CalcClient.java. If it is successful, “CalcClient.class” file will be created.

List 3-4 Example of Simplified Deployment Execution

```
C:¥axis¥axis-1_4¥samples¥userguide¥example2> javac CalcClient.java
C:¥axis¥axis-1_4¥samples¥userguide¥example2>
```

(8) Go to <AXIS_HOME> on the console.

(9) Start up the command such as “List 3-5 Example of Simplified Deployment Execution” on the console and check if the Web Service can be used from the client side.

(The part described here as “-p8080” is the BMv5's HTTP server port.)

List 3-5 Example of Simplified Deployment Execution

```
C:¥axis¥axis-1_4> java samples.userguide.example2.CalcClient -p8080 add 2 5
Got result : 7
C:¥axis¥axis-1_4> java samples.userguide.example2.CalcClient -p8080 subtract 10 9
Got result : 1
C:¥axis¥axis-1_4>
```

(Notes)

Web Service by JWS is meant to provide a simple Web service.

In this case, the class that is provided as Web Service is not able to use the package. Since the code is compiled at the time of execution, no error can be found until the deployment begins. In order to provide a high-end, commercial use Web Service, it is recommended to use a Java class that utilizes custom deployment.

3.2.6.3.4 Custom Deployment－Introduction of WSDD

This section describes a method that uses Web Service Deployment Descriptor (WSDD).

The Web Service registered here returns the character strings that were previously entered.

(1) Check if IWP is terminated.

(2) Check if MyService.class can be found in <*IMART_HOME*>/doc/imart/WEB-INF/classes/samples/userguide/example.
If it does not, compile the source within <*AXIS_HOME*>/samples/userguide/example3, and save it within the directory mentioned earlier. The content of MyService.java is shown in “List 3-6 MyServer.java”.

List 3-6 MyServer.java

```
package samples.userguide.example3;

public class MyService
{
	public String serviceMethod(String arg)
	{
		return arg;
	}
}
```

(3) Restart IWP.

(4) Check if “deploy.wsdd" file (WSDD file) exists within <*AXIS_HOME*>/samples/userguide/example3.
The content of MyService.java is shown in “List 3-7 deploy.wsdd (Custom Deployment)”.

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List 3-7 deploy.wsdd (Custom Deployment)

```
<deployment xmlns="http://xml.apache.org/axis/wsdd/"
                xmlns:java="http://xml.apache.org/axis/wsdd/providers/java">
  <service name="MyService" provider="java:RPC">
    <parameter name="className" value="samples.userguide.example3.MyService"/>
    <parameter name="allowedMethods" value="*"/>
  </service>
</deployment>
```

(5) Go to <AXIS_HOME> on the console.

(6) Run the command as shown in "List 3-8 Deployment Example by WSDD" on the console and deploy the Web Service from the client side. (Enter the 1st to 3rd line in one line)

List 3-8 Deployment Example by WSDD

```
C:¥axis¥axis-1_4> java org.apache.axis.client.AdminClient
                        -l http://localhost:8080/imart/services/AdminService
                            samples¥userguide¥example3¥deploy.wsdd

[en]-(Processing file samples¥userguide¥example3¥deploy.wsdd)
<Admin> [en]-(Done processing)</Admin>

C:¥axis¥axis-1_4>
```

(7) Run the command as shown in "List 3-9 Deployment Example by WSDD" on the console and check if the Web Service can be activated from the client side. (Enter the 1st to 2nd line in one line)

List 3-9 Deployment Example by WSDD

```
C:¥axis¥axis-1_4> java samples.userguide.example3.Client
                    -l http://localhost:8080/imart/services/MyService "test me!"
You typed : test me!
C:¥axis¥axis-1_4>
```

3.3 WebServer Settings

The description in this chapter is applicable **exclusively for IWP (Resin)**.

Set the WebServer so that it can be used on IWP (Resin).

This configuration is required when round robin is used.

Please refer to the Configuration Guide <HTTP> for details on Web Server Connector and round robin.

In this chapter, the directory installed with Web Server Connector is expressed as ***<%web_path%>***, and the directory installed with Service Platform to run Application Runtime is expressed as ***<%im_path%>.***

- **For UNIX OS, please give privileges to the following files and directories**
  - Please **give write authority** to the "***<%web_path%>/log***" directory.
  - Please **give read authority** to the "***<%web_path%>***".
  - Please **give write authority** to the directory into which each server module has been installed.

3.3.1 In case of Apache 2

3.3.1.1 Editing Apache 2's Configuration File (httpd.conf)

The following description uses "**imart**" as an alias name.

Please add the following code to the end of httpd.conf.

```
Alias /imart "<%web_path%>"

LoadModule caucho_module Path of Embedded Module

<IfModule mod_caucho.c>
ResinConfigServer IP address of AppRSrv Port number of AppRSrv
CauchoStatus false
</IfModule>
```

Please refer to the httpd.conf sample in the following directories.

OS	httpd.conf samples
Windows	***<%web_path%>***/round_robin/win32/apache2/sample_httpd.conf
UNIX	***<%web_path%>***/round_robin/unix/apache2/sample_httpd.conf

Embedded modules for Windows are available at the following location.

<%web_path%>/round_robin/win32/apache2/mod_caucho.dll

With UNIX OS, the embedded modules need to be compiled in the client's environment.

Compiled embedded modules can be obtained from the below URL.

Please check their requirements such as operating environment before use.

These compiled embedded modules are not included in customer support.

http://www.intra-mart.jp/download/try/trylist2.html (Trial Product Download)

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3.3.1.2 Compilation of Built-In Module (UNIX OS)

The embedded module (mod_caucho.so) needs to be compiled in the client's environment.

The following commands are required for compilation.

- **gcc**
- **make**
- **ld**

Check if the above-mentioned commands have a path. If they do not, please configure the environment so that these commands can be used.

Apache 2 needs to be DSO Surpport.

If it is not DSO Support, please re-compile Apache 2 using DSO Support.

If "mod_so.c" is displayed after executing the below command, Apache 2 is now DSO Support enabled.

```
unix> /usr/local/apache/bin/httpd -l
Compiled-in modules:
  ...
  mod_so.c
  ...
```

The following is an example of how to re-compile Apache 2.

- Apache 2's source file can be download from Apache web site (http://httpd.spache.org/) via the file name "httpd-2.0.XX.tar.gz".

  The following is the expansion example of the source file.

  tar zxvf httpd-2.0.*XX*.tar.gz

  Once the file "httpd-2.0.XX-X.tar.gz" is expanded, a directory expressed as "httpd-2.0.XX" will be created. Apache 2's source is found in this directory.

Execute the following command from the directory which Apache 2 source is expanded.

```
unix> ./configure --prefix=< directory into which Apache2 is installed>> --enable-module=so
unix> make
unix> make install
```

In case of Solaris, additional flags are sometimes needed when Apache2 is configured. If link error occurs at loading Resin, add a flag to make DSO valid. Please refer to Apache2 document for details. Below is an example of configure.

```
unix> ./configure --prefix=< directory into which Apache2 is installed>> ¥
                  --enable-rule=SHARED_CORE ¥
                  --enable-rule=SHARED_CHAIN ¥
                  --enable-module=so ¥
                  --enable-module=most ¥
                  --enable-shared=max
unix> make
unix> make install
```

■ **Embedded Module Compilation Procedure**

Execute the following command.

```
unix> cd <%web_path%>/round_robin/source
unix> ./configure --with-apache=<apache2 path>
unix> make
unix> make install
```

"mod_cauchoso" will be created in the module directory of Apache 2 (properly, in the libexec and modules directories of Apache 2).

※ In case of HP-UX, it is created as mod_caucho.sl.
Please change the extension as **.so**.

Copy the "mod_caucho.sp" to the following directory.

***<%web_path%>*/round_robin/unix/apache2**

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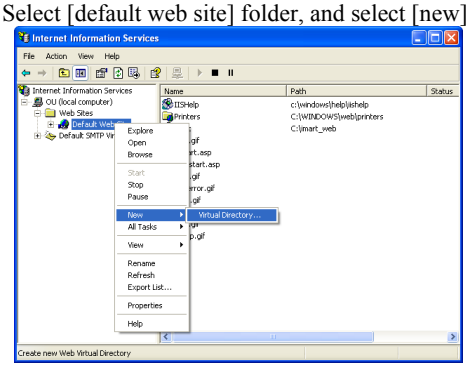
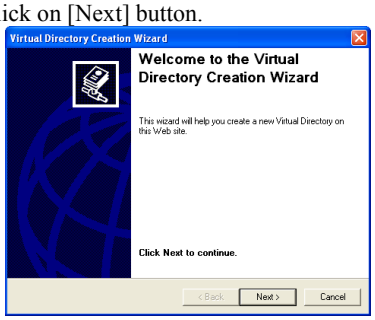
3.3.2 In case of IIS6.0

(1) Start Internet Information Service (IIS) Manager up.

(2) Select [default web site] folder, and select [new] - [virtual directory] by right click.

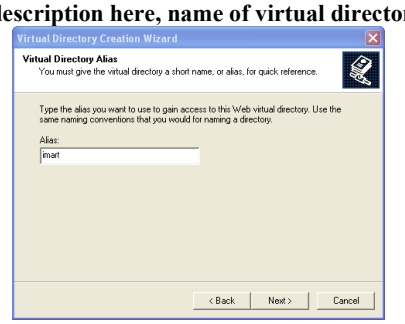


(3) Click on [Next] button.



(4) Input virtual directory and click on [Next] button.

***The description here, name of virtual directory is imart.**



(5) Set *<%web_path%>* as physical path and click on [Next] button.

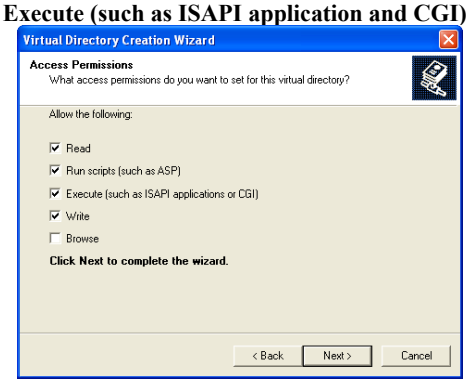
***<%web_path%>* is a directory in which Web Server Connector is installed.**

(6) Check required access authority and click on [Next] button.

Be sure to check following two.

※ **Read**

※ **Execute (such as ISAPI application and CGI)**



*If you do log output, please check **Write**.

*Other settings are arbitrary.

(7) Click on [Complete] button.

(8) Create a [scripts] directory in Web contents root (By default, C:¥Inetpub).

(If there is [scripts] directory, you do not have to create it.)

(9) Copy following files into [scripts] directory.

- ***<%web_path%>*¥round_robin¥win32¥isapi¥isapi_srun.dll**
- ***<%web_path%>*¥round_robin¥win32¥isapi¥resin.ini**

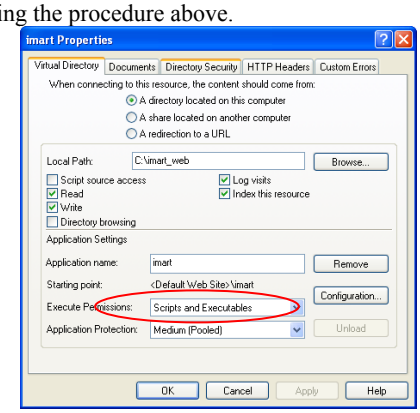
(10) Modify resin.ini as follows,

ResinConfigServer ***IP address*** *of AppRuntime* ***Port number*** *of AppRuntime*
CauchoStatus no
IISPriority high

(11) Create [scripts] directory as a virtual directory of [Default Web Site].

(Please repeat the procedures from (2) to (7). If it is already there, you do not have to create)

(12) Set the Execute Permissions of virtual directory [scripts] as [Scripts and Executables] which is made by following the procedure above.



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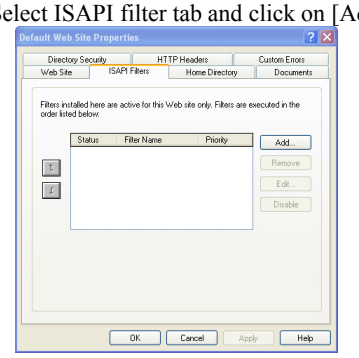
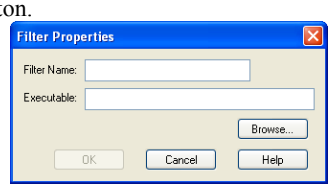
(13) Select [default Web site] and property by right click.

(14) Select ISAPI filter tab and click on [Add] button.

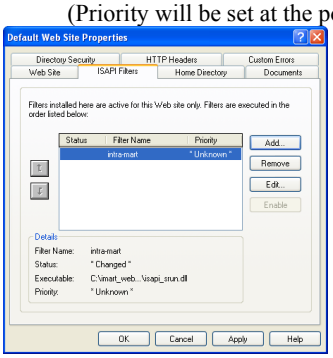


(15) Input "**intra-mart**" as [filter name], specify isapi_srun.dll ,copied in (9) as [Executables] and click on [OK] button.



Confirm that the settings are as follows.

※ [Status] of ISAPI filter will be changed to [Alredy Read] when accessed by browser.
(Priority will be set at the point)



(16) Select Web service expansion and select [Add a new Web service] by right click.

(17) Input "**intra-mart**" as [Filter name], specify isapi_srun.dll as [Executable], check [Set the status of expansion as authorized], and click on [OK] button.

3.3.3 Round-Robin Settings

This section describes how to configure round-robin in the following environment.

* Please refer to "**Round-robin** in Configuration guide <HTTP>" for details.

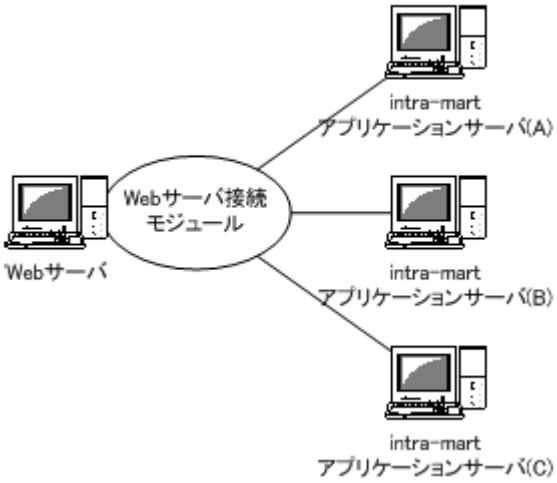


Diagram 3-1

3.3.3.1 http.xml Settings

Add <srun> tag of <*%im_path%*> /conf/http.xml.

```
<resin xmlns="http://caucho.com/ns/resin"
        xmlns:resin="http://caucho.com/ns/resin/core">
 ・・・
  <server>
 ・・・
    <cluster>
                <srun host="IP address of Server(A)" port="Port number of Server(A)" server-id="Server (A) ID"/>
                <srun host="IP address of Server(B)" port="Port number of Server(B)" server-id="Server(B) ID"/>
                <srun host="IP address of Server(C)" port="Port number of Server(C)" server-id="Server(C) ID"/>
    </cluster>
 ・・・
  </server>
 ・・・
</resin>
```

3.3.3.2 httpd.conf(In case of Apache) and resin.ini(In case of IIS) Settings

Assign the value of ResinConfigServer in httpd.conf set in the "**3.3.1.1 Editing Apache 2's Configuration File (httpd.conf)**" and "**3.3.2 In case of IIS6.0**" as the IP address and port number of any one of the Application Servers (A), (B), or (C). Here, the specified server **<%im_path%>** /conf/http.xml <srun> tag settings will be referenced and the Web server will recognize the application server.

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3.3.4 Other Settings

3.3.4.1 How To Change Alias

This section describes how to change the alias from “imart” to “imv61”.

(1) Edit the http.xml of Service Platform, on which all Application Runtimes are installed.
(Please refer to “3.3.4.1.1 Changing http.xml’s Alias” for details)
In case of round-robin, please change to the same alias on the Service Platform, on which all Application Runtimes are installed.
If the aliases are not same, round-robin will malfunction.

(2) Change the Web server settings.
(Please refer to “3.3.4.1.2 Changing the Alias of Web Server” for details)

(3) Edit the imart.xml of Service Platform, on which Schedule Service is installed.
(Please refer to “3.3.4.1.3 Changing the URL of Destination Application Runtime during Schedule Service Execution” for details)

(4) Edit the service property in case of using im-JavaEE Framework.
(Please refer to “3.3.4.1.4 Changing the Service Property Alias” for details)

3.3.4.1.1 Changing http.xml’s Alias

Please edit “resin/server/host/web-app” tag in http.xml.

(1) Please do not edit the id of <web-app ・・・・ id="/">.

(2) Please change the **id’s value** of the second <web-app id="/imart"> to “**imv61**”.
Before editing : <web-app id="/imart" document-directory="imart">
After editing : <web-app id="/imv61" document-directory="imart">

3.3.4.1.2 Changing the Alias of Web Server

■ **In case of Apache 2.0**

(1) Edit the alias of “/imart” in httpd.conf.
(Please refer to “3.3.1.1 Editing Apache 2’s Configuration File (httpd.conf)” for details)

Before editing : Alias /imart "*<%web_path%>*"
After editing : Alias /imv61 "*<%web_path%>*"

(2) Restart Apache 2.0.

■ **In case of IIS 6.0**

Set virtual directory name as “imv61” and configure the settings of “3.3.2 **In case of IIS6.0**” again.

3.3.4.1.3 Changing the URL of Destination Application Runtime during Schedule Service Execution

Edit the “intra-mart/platform/service/scheduler/connection-url” tag of the conf/imart.conf directory where the Service Platform (in which Schedule Service is running) has been installed.

Before editing： <connection-url>http://192.168.108.1:8080/imart/HTTPActionEventListener<connection-url>
After editing ： <connection-url>http://192.168.108.1:8080/imv61/HTTPActionEventListener<connection-url>

3.3.4.1.4 Changing the Service Property Alias

The following operation is necessary only when configuring the “context.path” property with the "ServiceConfig.properties" file. Since this property is not recommended, it is not advisable to change anything under normal circumstances.

(1) Edit the below portion of “*<%im_path%>*/doc/imart/WEB-INF/classes/ServiceConfig.properties”. *<%im_path%>* is the directory where the application server has been installed.

Before editing ： context.path=/imart
After editing ： context.path=/imv61

(2) Restart all Service Platforms that has “http.xml” changed.

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3.3.4.2 Registering Self-Created Web Application

This section describes how to deploy Web applications that includes servlet HelloServlet.class to *<%usr_path%>*.

The URL that invokes HelloServlet.class is "**/usr/hello**".

As for the URL that invokes servlet, it is "**http://host name[:port]/usr/hello**".

(Notes) intra-mart's unique API cannot be used by self-created applications.

(1) Copy HelloServlet.class to ***<%usr_path%>***/WEB-INF/classes.

If the servlets are consolidated in the jar file, copy it to ***<%usr_path%***>/WEB-INF/lib instead.

(2) Create ***<%usr_path%>/WEB-INF/web.xml***, and edit it as shown below.

```
<web-app>
    <servlet>
        <servlet-name>hello-servlet</servlet-name>
        <servlet-class>HelloServlet</servlet-class>
        <load-on-startup/>
    </servlet>

    <servlet-mapping>
        <servlet-name>hello-servlet</servlet-name>
        <url-pattern>/hello</url-pattern>
    </servlet-mapping>
</web-app>
```

(3) Map to a virtual directory. Add the below to the end of "caucho.com/http-server/host" tag of the http.xml of Service Platform, which runs Application Runtime.

<web-app id="usr" app-dir="<%usr_path%>" />

By writing web-app, the servlets under "WEB-INF/classes" of the actual mapped directory can be identified.

3.3.4.3 Changing URL of Login Page

Although a login page will be displayed by default from the following URLs, this section describes how to change the name.

Login Type	URL
System Administrator	**http:// Servername [:*Port*]/imart/system.admin**
Login Group Administrator	**http:// Servername [:*Port*]/imart/login group ID.manager**
General User (PC)	**http:// Servername [:*Port*]/imart/login group ID.portal**
General User (Mobile)	**http:// Servername [:*Port*]/imart/login group ID.mobile**

3.3.4.3.1 System Administrator's Login Page

- ***<%im_path%>*/doc/imart/WEB-INF/web.xml**

  Change the following section in web.xml:

```
<servlet-mapping>
    <servlet-name>SuperUserInitialServlet</servlet-name>
    <url-pattern>/system.admin</url-pattern>
</servlet-mapping>
```

as follows.

```
<servlet-mapping>
    <servlet-name>SuperUserInitialServlet</servlet-name>
    <url-pattern>/preferred name</url-pattern>
</servlet-mapping>
```

3.3.4.3.2 Group Administrator's Login Page

- **Changing *<%im_path%>*/doc/imart/WEB-INF/web.xml**

  Change the following section in web.xml:

```
<servlet-mapping>
    <servlet-name>GroupSuperUserInitialServlet</servlet-name>
    <url-pattern>/*.manager</url-pattern>
</servlet-mapping>
```

as follows;

```
<servlet-mapping>
    <servlet-name>GroupSuperUserInitialServlet</servlet-name>
    <url-pattern>/*.preferred name</url-pattern>
</servlet-mapping>
```


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3.3.4.3.3 General Users' Login Page (PC)

- **Changing <*%im_path%*>/doc/imart/WEB-INF/web.xml**

  Change the following section in web.xml:

```
<servlet-mapping>
    <servlet-name>UserInitialServlet</servlet-name>
    <url-pattern>/*.portal</url-pattern>
</servlet-mapping>
```

  as follows;

```
<servlet-mapping>
    <servlet-name>UserInitialServlet</servlet-name>
    <url-pattern>/* preferred name</url-pattern>
</servlet-mapping>
```

3.3.4.3.4 General Users' Login Page (Mobile)

- **Changing <*%im_path%*>/doc/imart/WEB-INF/web.xml**

  Change the following section in web.xml:

```
<servlet-mapping>
    <servlet-name>UserInitialServletForMobile</servlet-name>
    <url-pattern>/*.mobile</url-pattern>
</servlet-mapping>
```

  as follows;

```
<servlet-mapping>
    <servlet-name>UserInitialServletForMobile</servlet-name>
    <url-pattern>/*.preferred name</url-pattern>
</servlet-mapping>
```

3.4 intra-mart WebPlatform (JBoss) Settings

3.4.1 Operation prerequisites of IWP (JBoss)

The following requirements must be met in order to run IWP (JBoss).

- DataSource has already been registered in JBoss.
- The WAR file to be deployed exists
- "<% Server Manager's root %>/conf/data-source.xml" has already been configured.

WAR files can be deployed once the above-mentioned requirements are met.

3.4.2 IWP (JBoss) Settings

URL to access to IWP (JBoss) is explained in /imart.

In this chapter, a directory in which Jboss is installed is expressed as ***<%JBoss_path%>.***

The deployment procedure of JBoss will be as follows.

(1) Configure environment variables [JAVA_HOME].

(Please refer to "3.4.2.1 Environment Variables [Environmental Variables [JAVA_HOME」Setting")

(2) Creation of WAR file

(Please refer to "3.4.2.2 Creation of WAR file")

(3) Data source settings

(Please "3.4.2.3 Data Source Settings".)

(4) Deployment of WARfile

(Please "3.4.2.4 Deployment of WAR File".)

*** When installation of Application Runtime is completed, installation of JBoss and creation of WAR are also completed. Above mentioned (2) can be omitted directly after the installation.**

*** If you change contents and re-compile the class, creation and deployment of WAR file are necessary again.**

*** There is no need to repeat (3) every time.**

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3.4.2.1 Environmental Variables [JAVA_HOME] Settings

Configure Environmental Variables [JAVA_HOME].

3.4.2.2 Creating WAR File

Create WAR files of IWP (Resin).

If you change the contents or re-compile, this procedures are indispensable.

In this chapter, root directory of **AppRuntime** as ***<%AppRuntime_path%>.***

(1) Move to following directory in the console

<%AppRuntime_path%>/bin

(2) Create WAR file by executing following command.

zippack –o <WAR file name> <Context Root Path>

[Example]

Windows : zippack -o ..¥imart.war ..¥doc¥imart

UNIX : zippack.sh -o ../imart.war ../doc/imart

By this command,

WAR file, "imart.war", is created directly under *<%AppRuntime_path%>*.

3.4.2.3 Data source setting

This chapter explains a configuration example when using PostgreSQL.

(1) Editing postgres-ds.xml

Change ***<%JBoss_path%>***/server/imart/deploy/postgres-ds.xml as follows.

```
        .
        .
        .
    <jndi-name><%Data source Reference name%></jndi-name>
    <connection-url>jdbc:postgresql://<%Address of PostgreSQL%>:<%Port
Number%>/<%Database name%></connection-url>
    <driver-class>org.postgresql.Driver</driver-class>
    <user-name> User Name for database connection </user-name>
    <password> User password for database connection </password>
    <metadata>
        <type-mapping>PostgreSQL 8.0</type-mapping>
    </metadata>
        .
        .
        .
```

(2) Deploy JDBC driver PostgreSQL in ***<%JBoss_path%>*** /server/imart/lib.

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3.4.2.4 WAR File Deployment

(1) Deploy WAR file

Deploy WAR file created in the procedure "3.4.2.2 Creation of WAR file" directly under ***<%JBoss_path%>*** /server/imart/deploy/.

(2) Edit data-source.xml

Edit <% Server Manager root %>/conf/data-source.xml.

Please refer to "3.6.3 data-source.xm" for details.

(3) Start up all the IWP (JBoss) servers.

【Important】If Server Manager and Service Platform (only in case of distributed system) is not started up, deployment cannot be implemented.

(* Please refer to "4 Startup and Shutdown" on how to start up server manager and service platform.)

(4) Start up JBoss.

* If you have already started up, restart it.

Move to ***<%JBoss_path%>***/bin and start JBoss by executing following command.

run –c imart ↵

[Example]

Windows : run -c imart

UNIX : run.sh -c imart

You can automatically finish deployment for these procedures.

3.5 Application Server Settings

The description in this chapter is applicable to **AFW only.**

3.5.1 WebSphere Settings

Set the AFW so that it can be used on WebSphere.

The following requirements must be met in order to run AFW on WebSphere.

- DataSource has already been registered in WebSphere
- The WAR file to be deployed exists
- <% Server Manager root %>/conf/data-source.xml has already been configured

WAR files can be deployed once the above-mentioned requirements are met.

3.5.1.1 Reminders before Deployment

If “EUC-JP” is selected as character encode at the time of AFW installation, the character encoding settings must be changed before deployment.

Please implement the following procedure if “EUC-JP” is being used for either one of the following: [Character Encoding for Server Module] or [Character Encoding Sent to Web Browser].

(1) Open “converter.properties” file, which is located where WebSphere is installed, using a text editor.

(2) The settings value of “EUC-JP” within converter.properties should be [EUC-JP=Cp33722c] immediately after the installation.
Please change this value to [EUC-JP=EUC-JP].

Change contents of[converter.properties]

```
Shift_JIS=Cp943C
EUC-JP=EUC-JP
EUC-KR=Cp970
EUC_KR=Cp970
EUC-TW=Cp964
Big5=Cp950
GB2312=EUC_CN
ISO-2022-KR=ISO2022KR
```

(3) Save “converter.properties” file

Now, the character encoding has been changed successfully.

For detailed information, please access IBM Japan’s “Technical Information” website:

http://www-6.ibm.com/jp/software/websphere/developer/w40/v40hintstips.html

(31/07.2007)

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3.5.1.2 Example of WebSphere Application Server Deployment

The URL to access AFW is explained in "/imart".

The following description uses **IBM WebSphere Application Server 6.1 (Windows version)** as an example. (Since the configuration method will differ in case of other revisions and editions of WebSphere, please consult the distributors or manufacturers of WebSphere for further enquiries.)

The deployment procedure of WebSphere Application Server will be as follows.

(1) Create WAR file
(Please refer to "3.5.1.2.1 Creating WAR File" for details)

(2) Registering DataSource (JDBC) in WebSphere
(Please refer to "3.5.1.2.2 Registering DataSource (JDBC) in WebSphere" for details)

(3) Deploying WAR file
(Please refer to "3.5.1.2.3 WAR File Deployment" for details)

*** There is no need to repeat the process (2) every time.**

3.5.1.2.1 Creating WAR File

Create WAR file for AFW.
This process is always required if the contents or class is re-compiled.
<%im_path%> is the directory installed with Application Runtime.

(1) Go to the following directory on the console screen.
<%im_path%>/bin

(2) Execute the following command to create a WAR file.
zippack –o <WAR File Name> <Context Root Path>
[Example]

Windows	:	zippack -o ..¥imart.war ..¥doc¥imart
UNIX	:	zippack.sh -o ../imart.war ../doc/imart

By executing this command, a WAR file will be created as *<%im_path%>*/imart.war.

3.5.1.2.2 Registering Data Source (JDBC) in WebSphere

The following is an example on how to register DataSource

This section describes on Oracle, DB2, Microsoft SQL Server 2000, and PostgreSQL. Each DB is assumed to be pre-installed with JDBC driver.)

* DataSource needs to be registered only once. It does not need to be repeated at every deployment.

3.5.1.2.2.1 Login to Administration Console

(1) Start up “First Step” of WAS.

(2) If WAS is down, start up WAS from [Server Startup] of “First Step”.

(3) Start up the Administration Console using [Administration Console] of “First Step”.

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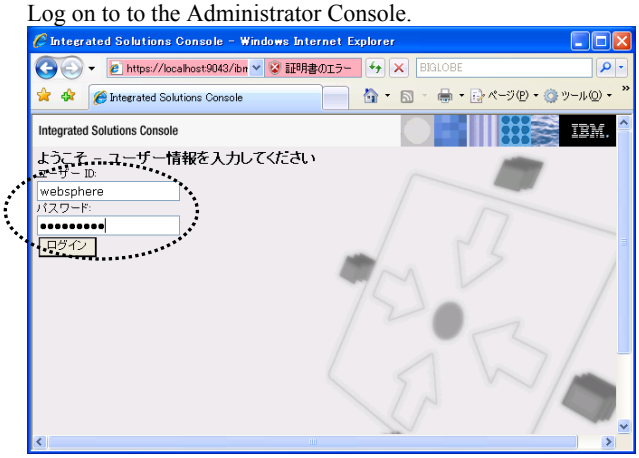
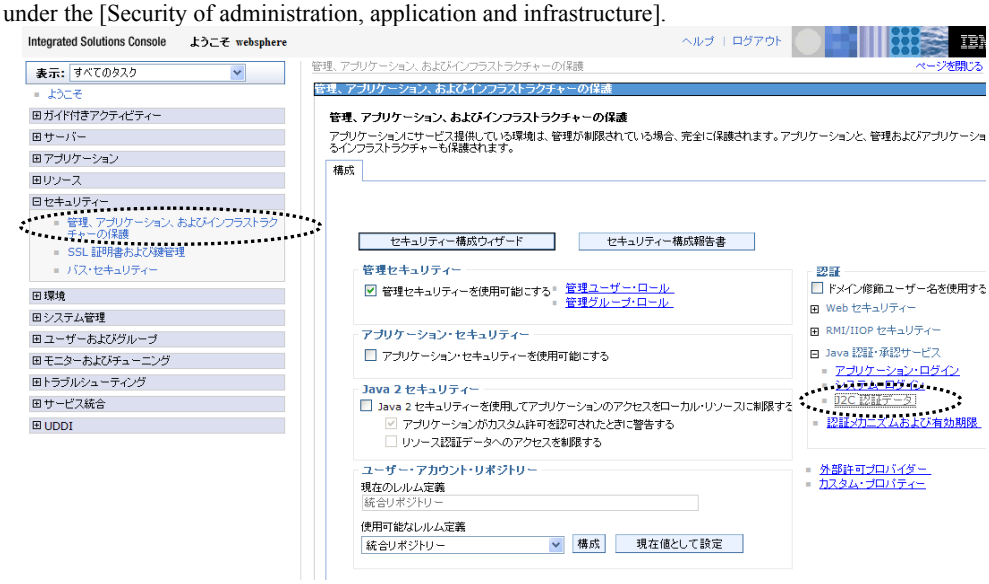
(4) Log on to to the Administrator Console.

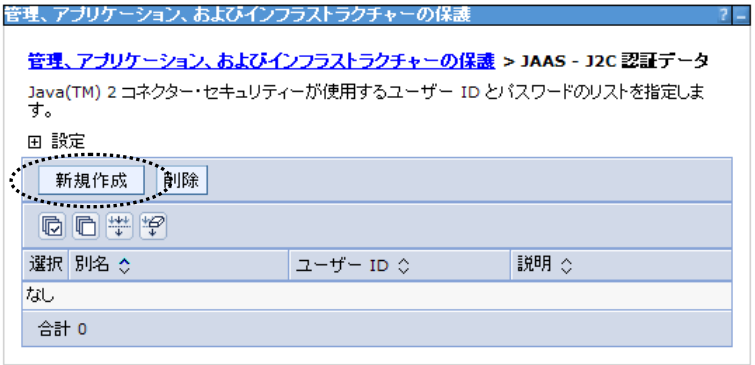


3.5.1.2.2.2 Configuring the DB User Information to get connected to the Database

(1) Select [Authentification] - [Java Authentification and Authorization Service] - [J2C Authentification Data] under the [Security of administration, application and infrastructure].



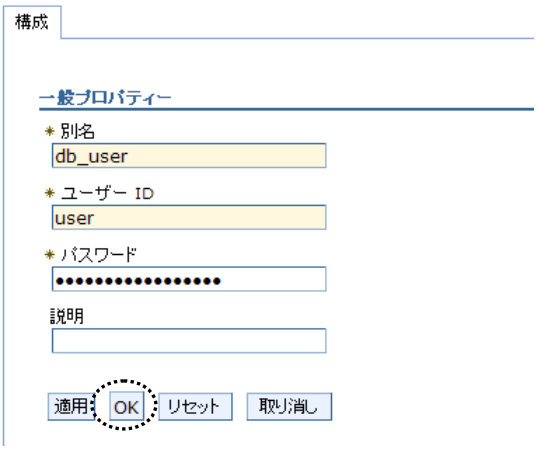
(2) Click on the [Create New] button.



(3) Enter an alias (optional), DB user ID, and password, then click on [OK] button.

Here, the alias is set as “db_user”.

This is the end of DB User Information registration.



3.5.1.2.2.3 JDBC Provider Settings

3.5.1.2.2.3.1 In case of Oracle

(1) Select [Resource] - [JDBC Provider] from the menu.

(2) Click on the [Create New] button on the “JDBC Provider” page.

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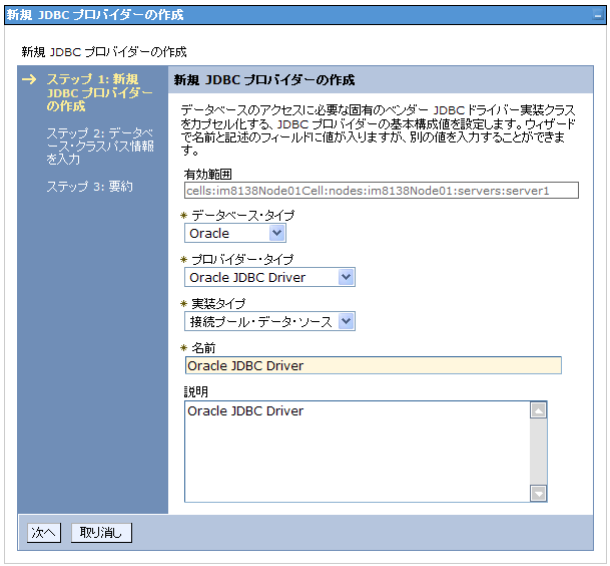
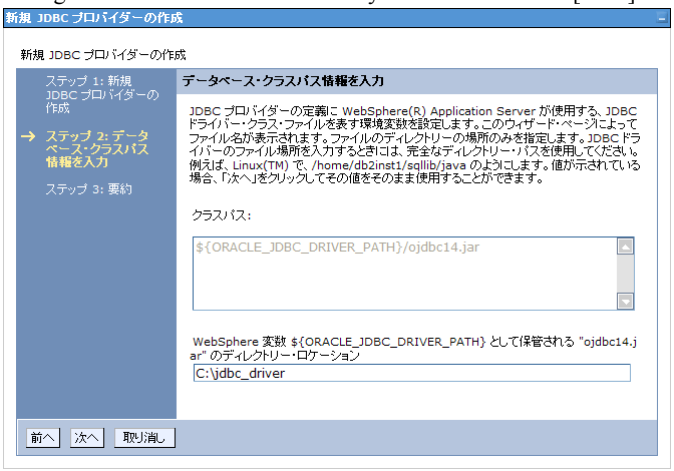
(3) Configure [Database Type], [Provider Type], and [Implementation Type] and click on [Next] button.



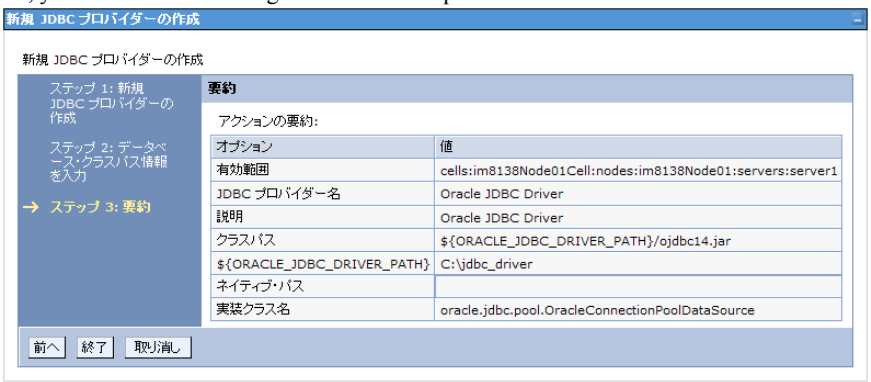
Database type	Provider Type	Implementation Type
Oracle	Oracle JDBC Driver	Connection Pool Data Source

(4) Configure a location of JDBC directory driver and click on [Next] button.



(5) Check the configuration and click on [Complete] button.

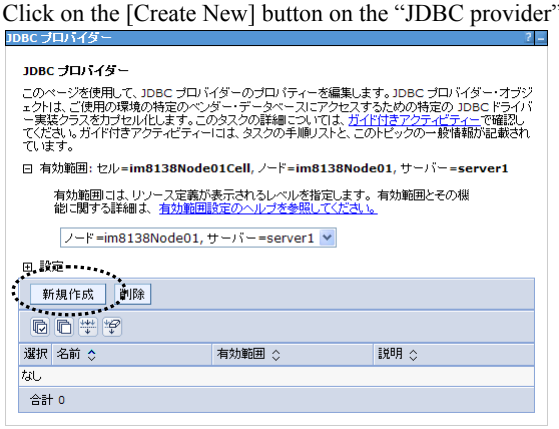
Now, you can finish the configuration of JDBC provider.



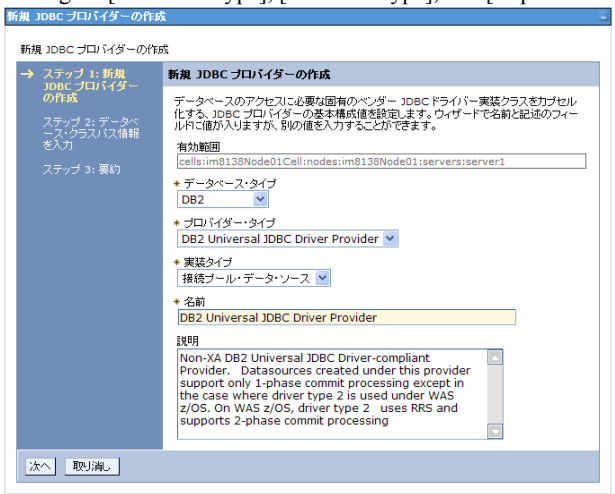
3.5.1.2.2.3.2 In case of DB2

(1) Select [Resource]- [JDBC provider] from menu.

(2) Click on the [Create New] button on the "JDBC provider" page.



(3) Configure [Database Type], [Provider Type], and [Implementation Type] and click on [Next] button.



Database type	Provider Type	Implementation Type
DB2	DB2 Universal JDBC Provider	Connection Pool Data Source

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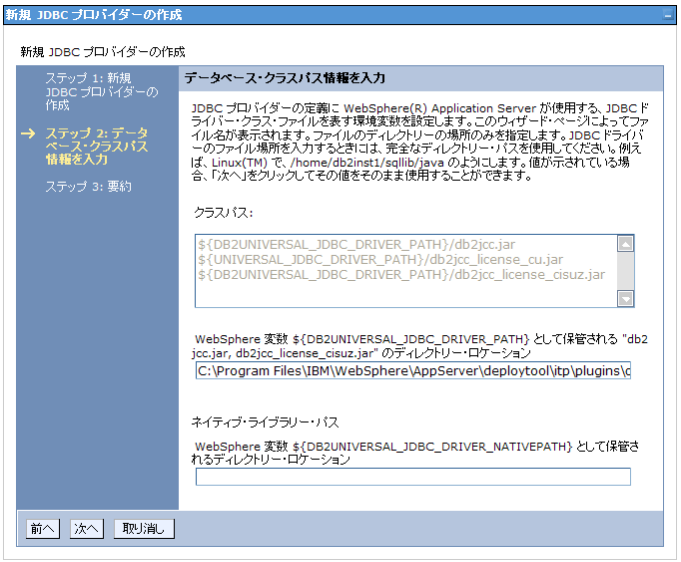
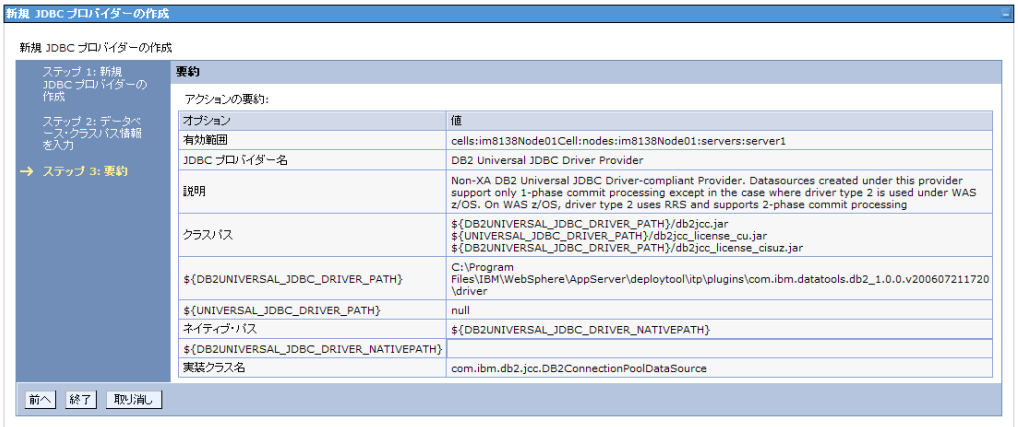
(4) Configure a location of JDBC driver directory and click on [Next] button.



(5) Check the configuration and click on [Complete] button.

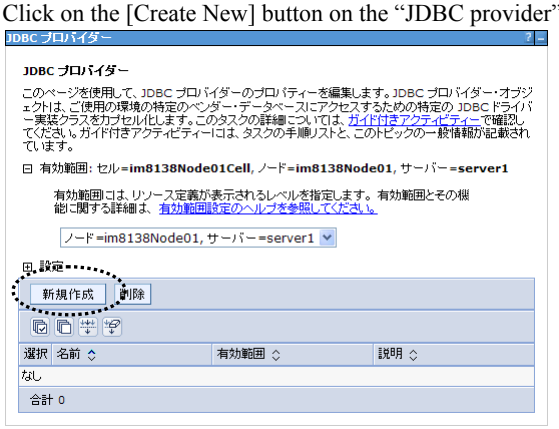
Now, you can finish the configuration of JDBC provider.



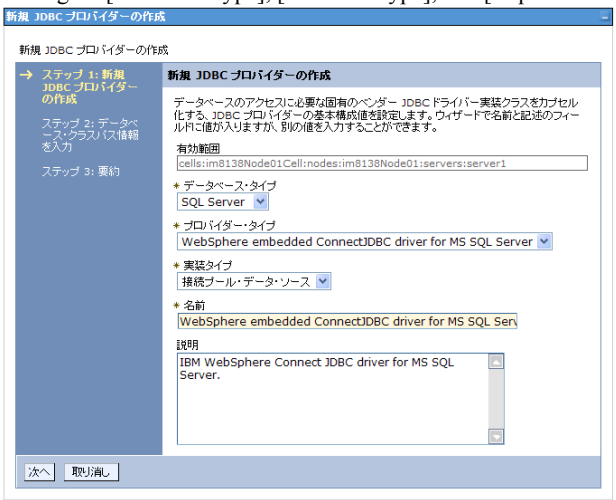
3.5.1.2.2.3.3 In case of Microsoft SQL Server 2000

(1) Select [Resource] – [JDBC Provider] from menu.

(2) Click on the [Create New] button on the "JDBC provider" page.



(3) Configure [Database Type], [Provider Type], and [Implementation Type] and click on [Next] button.



Database type	Provider Type	Implementation Type
SQL Server	WebSphere embedded ConnectJDBC driver for MS SQL Server	Connection Pool Data Source

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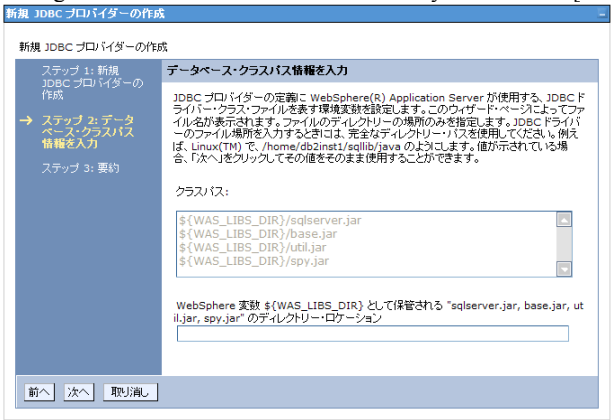
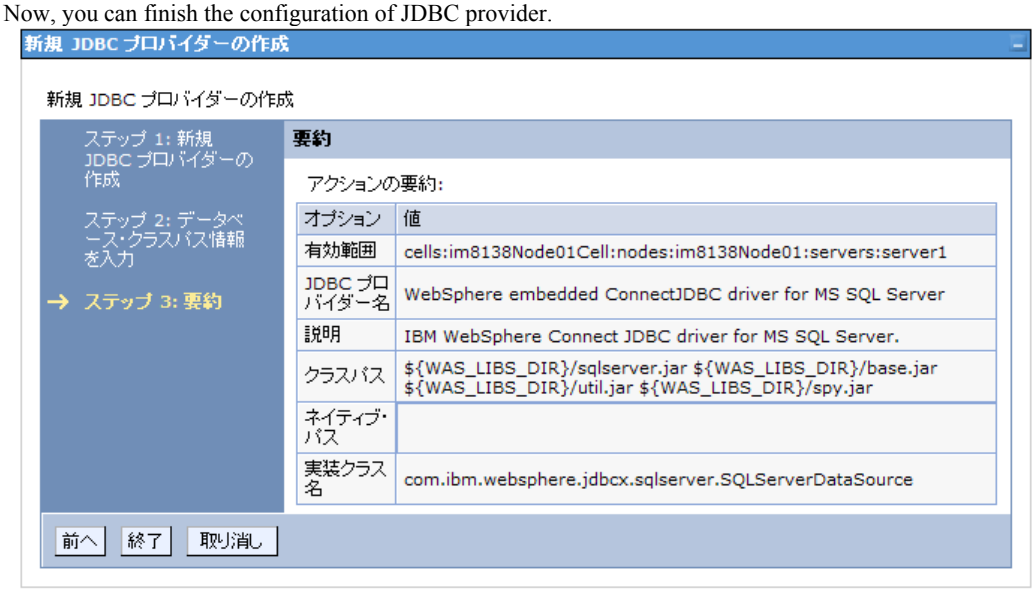
(4) Configure a location of JDBC driver directory and click on [Next] button.



(5) Check the configuration and click on [Complete] button.

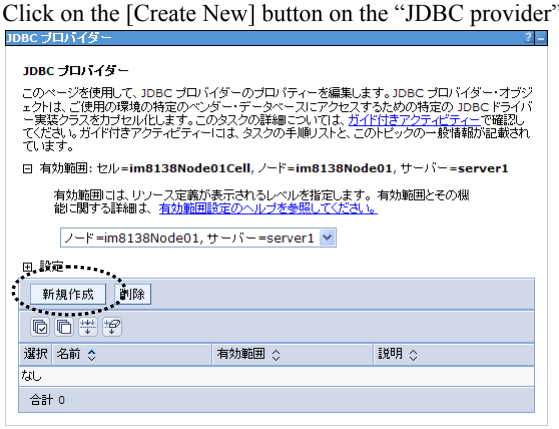
Now, you can finish the configuration of JDBC provider.



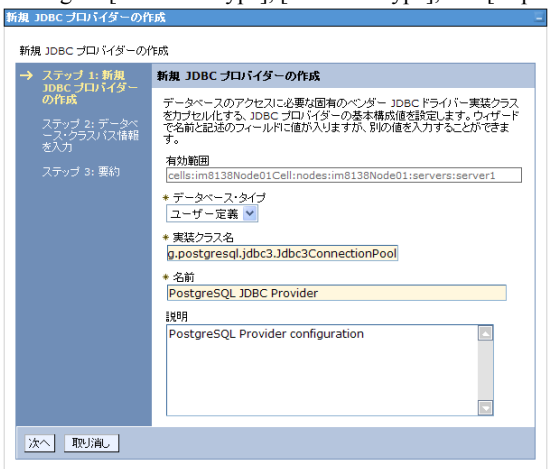
3.5.1.2.2.3.4 In case of PostgreSQL

(1) Select [Resource] – [JDBC provider]

(2) Click on the [Create New] button on the “JDBC provider” page.



(3) Configure [Database Type], [Provider Type], and [Implementation Type] and click on [Next] button.



Database Type	Implementation Class Name
User definition	org.postgresql.jdbc3.Jdbc3ConnectionPool

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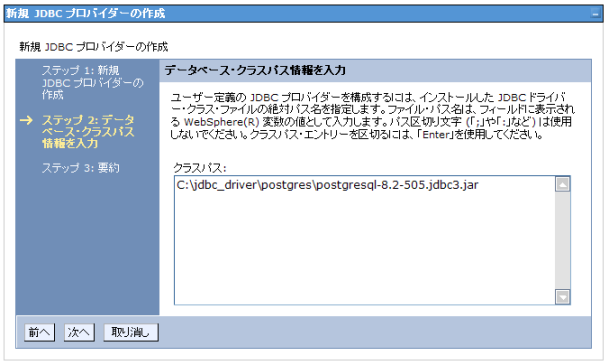
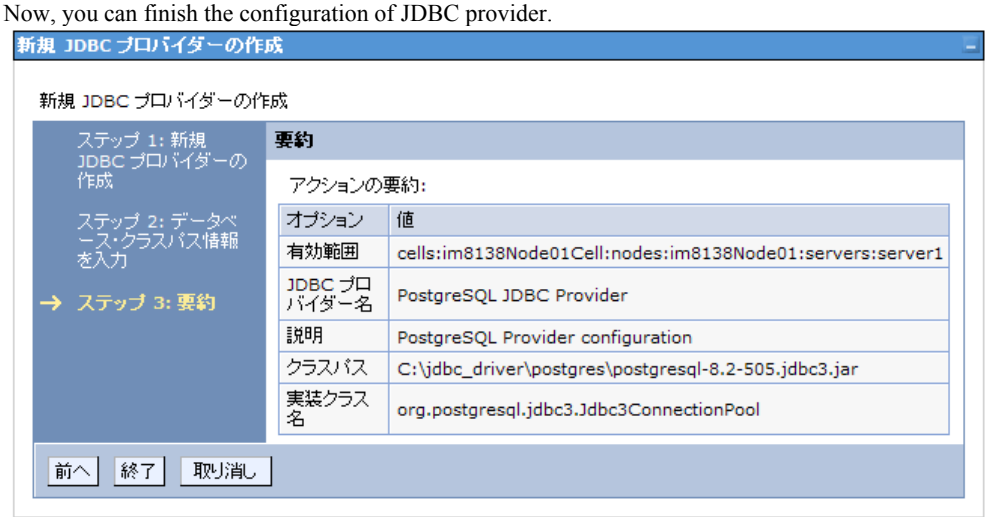
(4) Specify absolute path name of driver, class and file, and click on [Next] button.



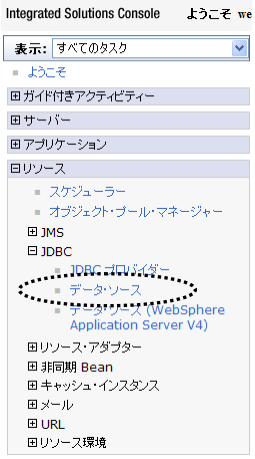
(5) Check the configuration and click on [Complete] button.

Now, you can finish the configuration of JDBC provider.

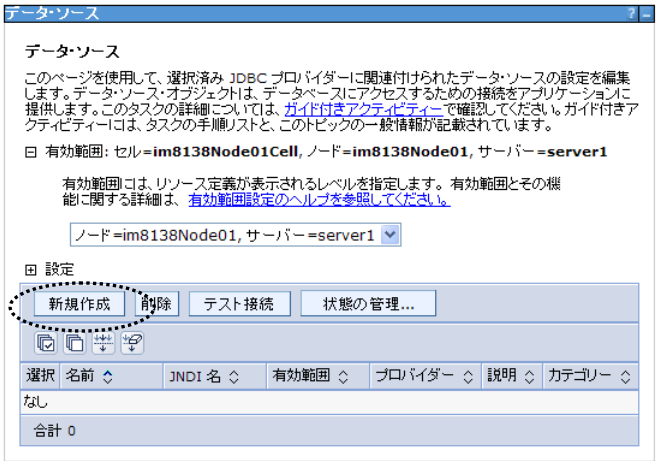


3.5.1.2.2.4 Data Source Settings

(1) Select [Resource] - [JDBC Provider] from the menu.

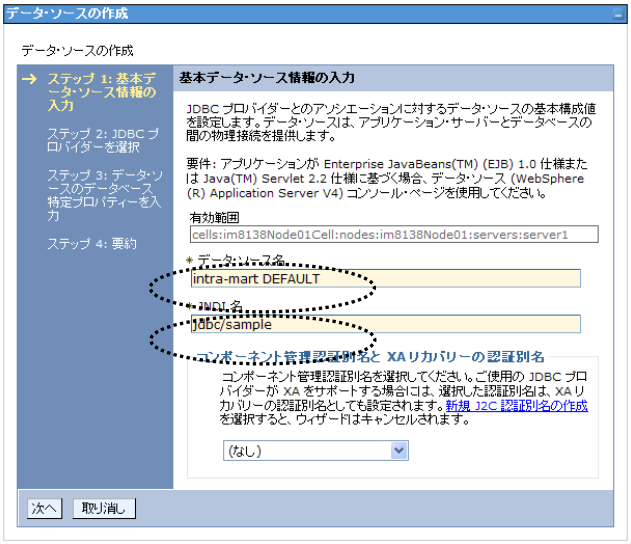


(2) Click on the [Create New] button on the “Data source” page.



(3) Enter any name in the [Datasource Name] field and [JNDI Name] to identify the data source, and click on [Next] button.

Here, [Datasource Name] as "intra-mart DEFAULT” and “jdbc/sample” as [JNDI name] are entered.



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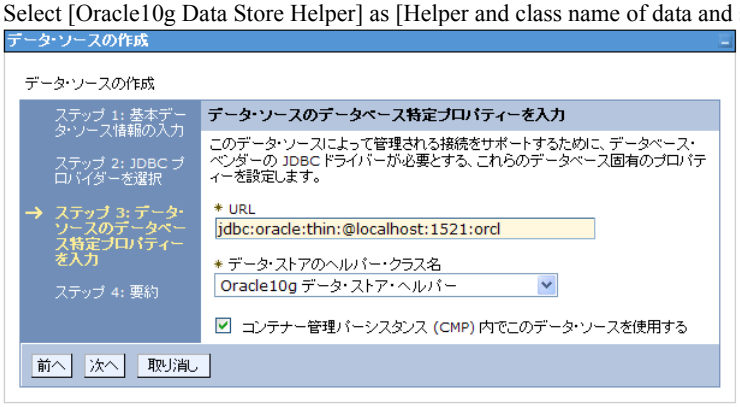
(4) Select JDBC provider created in “3.5.1.2.2.3 JDBC Provider Settings” and click on [Next] button.

(5) Input database-specific property of data source and click on [Next] button.

*In case of Oracle

Input [URL] and [Helper and class name of data and store]

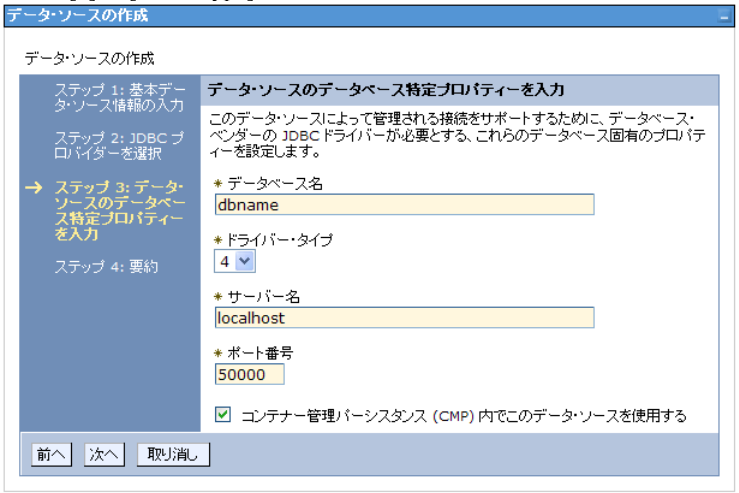
Select [Oracle10g Data Store Helper] as [Helper and class name of data and store].



*In case of DB2

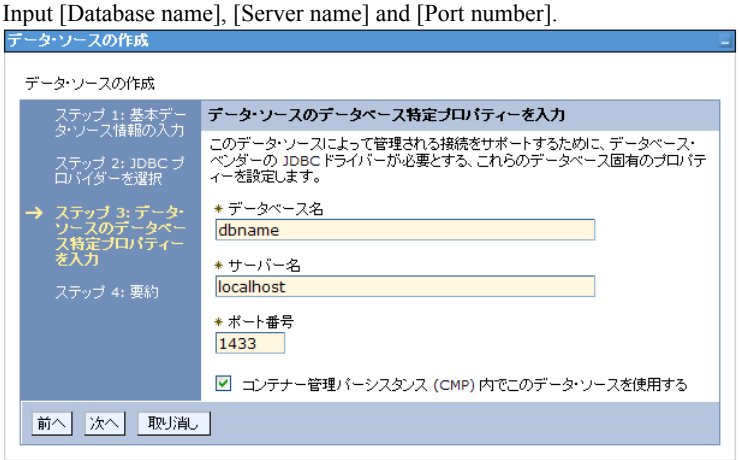
Input [Database name], [Driver type], [Server name] and [Port number].

Select [4] as [Driver type].



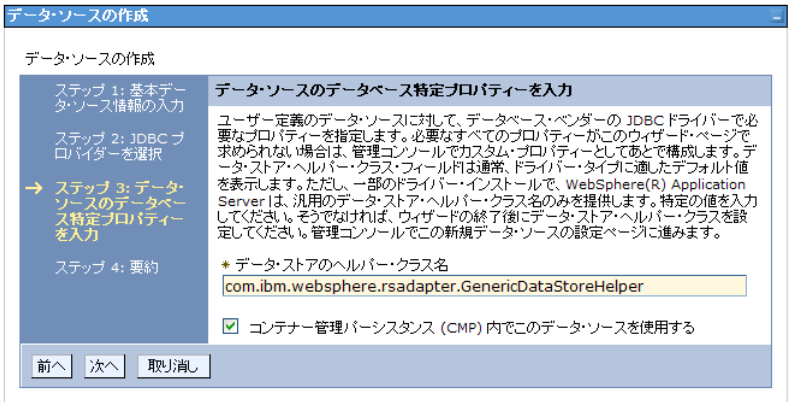
※ In case of SQL Server 2000

Input [Database name], [Server name] and [Port number].

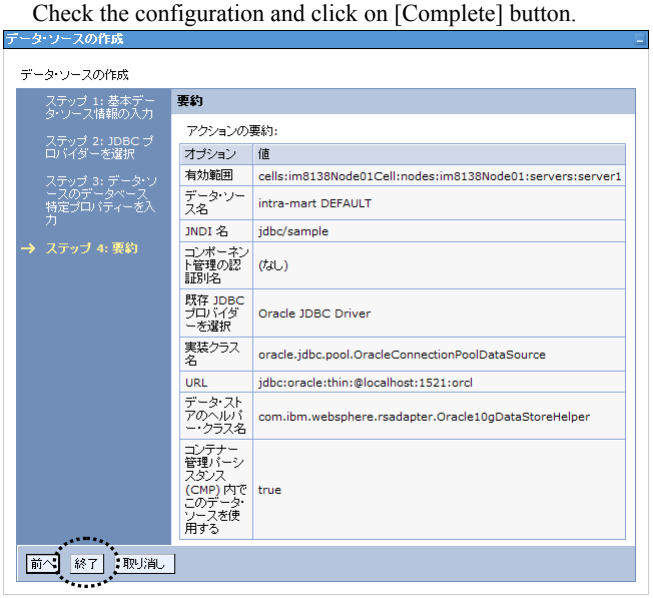


※ In case of PostgreSQL

Input "com.ibm.websphere.rsadapter.GenericDataStoreHelper"as [Helper Class Name of Data and Store].



(6) Check the configuration and click on [Complete] button.



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3.5.1.2.2.5 Connecting Data Source with Database User.

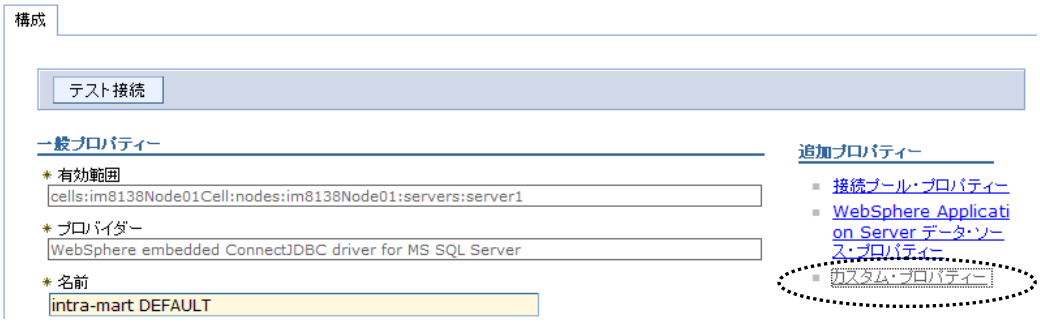
(1) Select [Resource]- [JDBC provider] from menu again, click a linkage of “intra-mart DEFAULT”.

(2) Select “Component Administration Authentification Alias” set in “3.5.1.2.2.2 Configuration of DB users to be connected to database”.

3.5.1.2.2.6 Configuring custom property of datasource

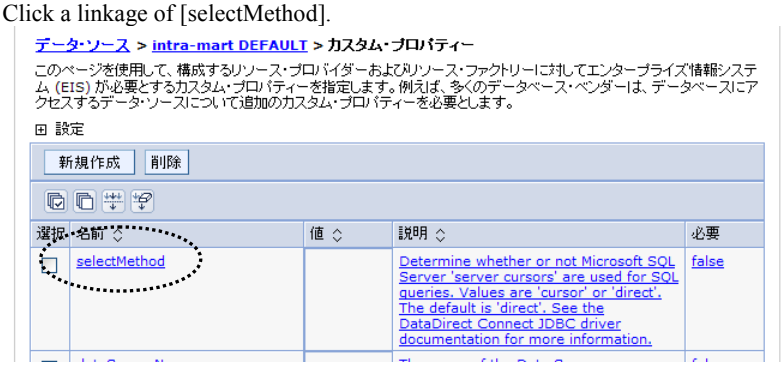
(1) Configuring custom property. Select [Additional property] – [Custom Property].

(This is necessary when you use SQLServer2000 and PostgreSQL)



*In case of SQL Server 2000

Click a linkage of [selectMethod].



Under Value, enter “Cursor” and click on [OK].

* In case of PostgreSQL

Configure [serverName],[databaseName] and[portNumber].

Because this uses GenericDataStoreHelper, following alert will displayed when using DB.

“”Alert: GenericDataStoreHelper is used”

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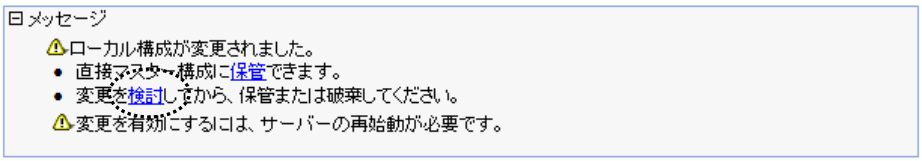
3.5.1.2.2.7 Saving Changes

(1) Click on the [Inspection] link in the [Message] field.



Click on the [Save] button after checking the changed parts.

DataSource has been successfully registered in WebSphere.

3.5.1.2.3 WAR File Deployment

Register an intra-mart application on the WebSphere.

Prior to the deployment, please ensure that the following tasks have been all completed.

- AFW has already been installed
- WAR file has already been created
- WebSphere has already been installed
- DataSource has already been configured

  Please refer to “3.5.1.2.2 Registering DataSource (JDBC) in WebSphere“.
- WAR file has not been deployed yet (If it has been deployed, delete it)

WAR file can be deployed once the above-mentioned operations have been completed

(1) Edit data-source.xml

Edit “<% Server Manager’s root %>/conf/data-source.xml”.

Please refer to “3.6.3 data-source.xm” for details.

(2) Start up all AFW servers.

(Important) If Server Manger and Service Platform are not started up, deployment cannot be implemented.

* Please refer to “4 Startup and Shutdown” on how to start up servers.

(3) Start up “First Step” of WAS.

(4) If WAS is down, start up WAS from [Server Startup] of “First Step”.

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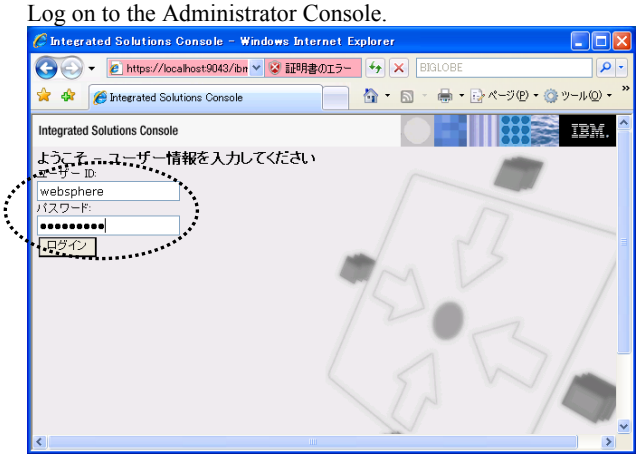
(5) Start up the Administration Console using [Administration Console] of “First Step”.

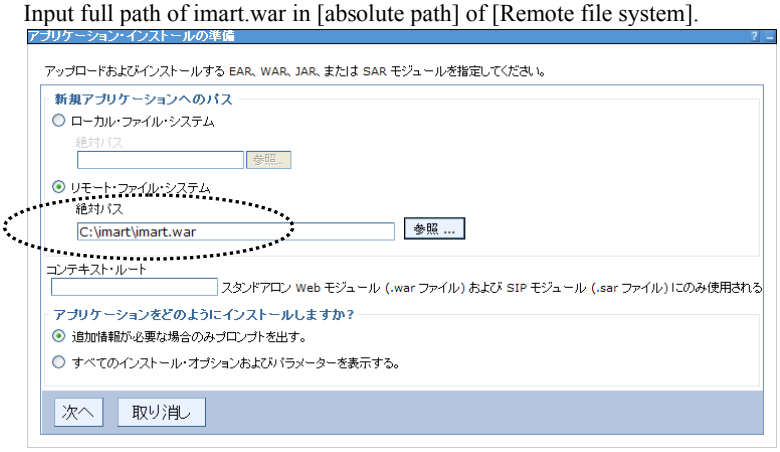
(6) Log on to the Administrator Console.



(7) Select [Application] - [Install New Application] from the menu.

(8) Configure [Path to New Application].

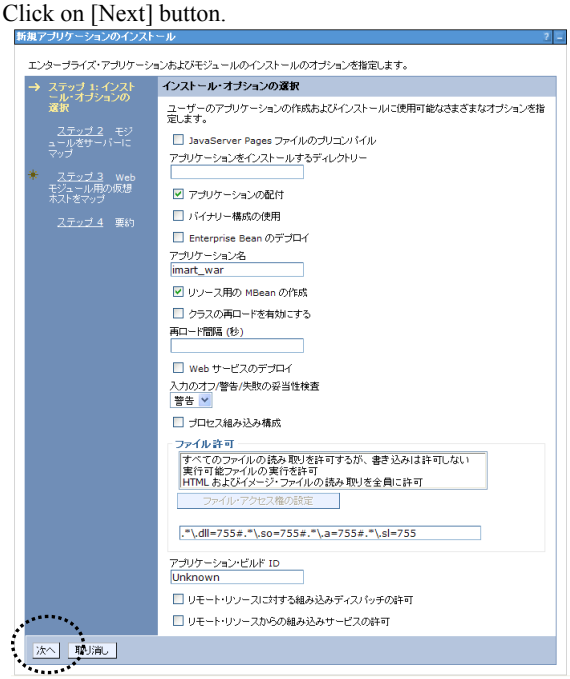
Input full path of imart.war in [absolute path] of [Remote file system].



(9) Enter a context path in [Context Root] and click on [Next] button.

Here, [/imart] is entered.

(10) Click on [Next] button.



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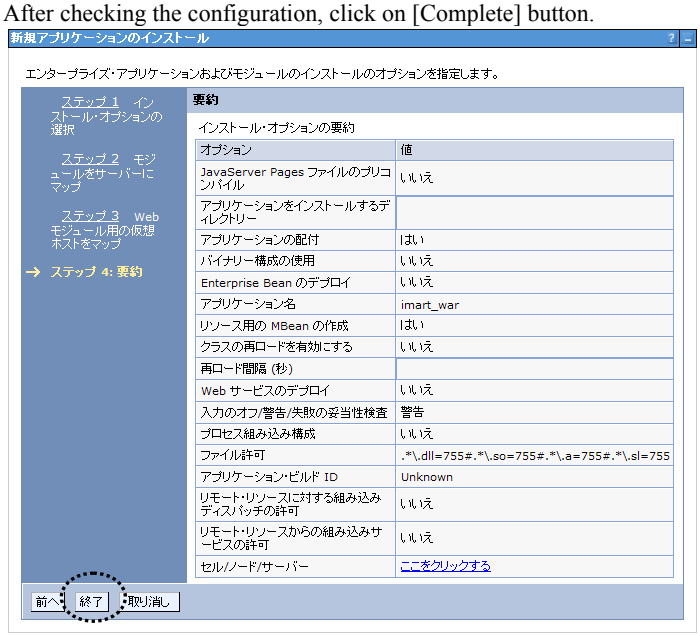
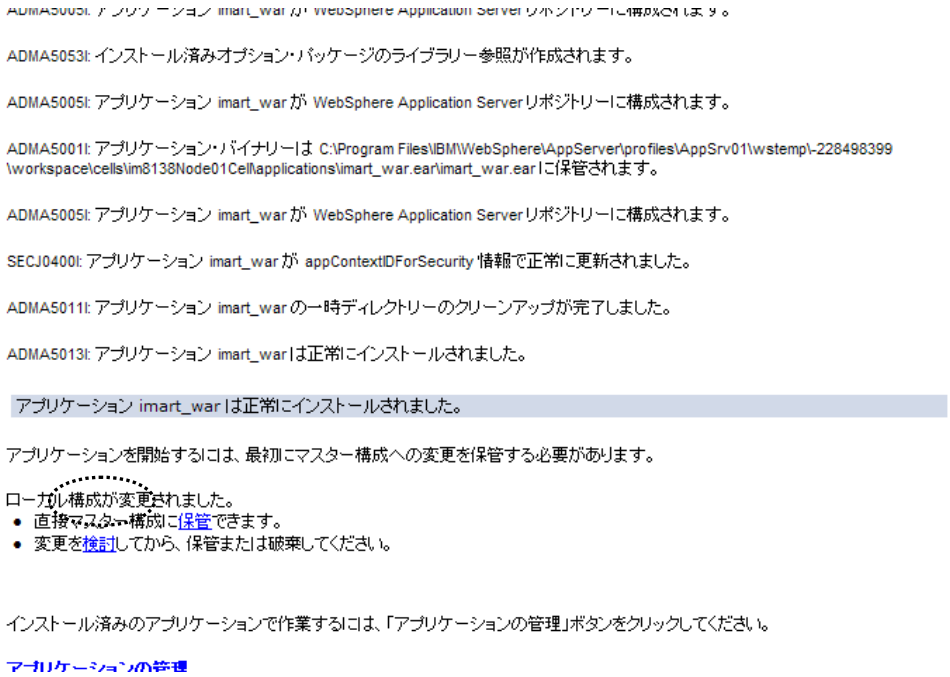
(11) Click on [Next] button.

(12) Click on [Next] button.

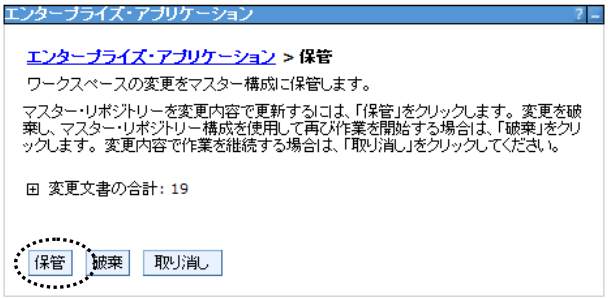
(13) After checking the configuration, click on [Complete] button.



(14) If “Application <imart_war> has been successfully installed” is displayed, click on the [Inspectation] link.



(15) Check the changed points and Click on the [Save] button.



WAR file has been successfully deployed.

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3.5.2 WebLogic Settings

Configure AFW so that it can be used on WebLogic.
In order to operate AFW on WebLogic, the following requirements must be met.

- DataSource has already been registered with WebLogic
- The WAR file to be deployed already exists
- "<% Server Manager's root %>/conf/data-source.xml" has already been configured

WAR files can be deployed once the above-mentioned requirements are met.

3.5.2.1 Example of WebLogic Application Server Deployment

The URL for accessing AFW will be explained in "/imart".

The following description uses **WebLogic10J (Windows version)** as an example.
(Since the configuration method will differ in case of other revisions and editions of WebLogic, please consult the distributors or manufacturers of WebLogic for further enquiries.)

The deployment procedure of WebLogic Application Server will be as follows.

(1) Creating WAR file
(Please refer to "3.5.2.1.1 Creating WAR" for details)

(2) Registering the DataSource (JDBC) to WAR file.
(Please refer to "3.4.2.1.2 Registering DataSource (JDBC) in WebLogic" for details)

(3) Deploying WAR file
(Please refer to "3.4.2.1.3 WAR File Deploy" for details)

*** There is no need to repeat the process (2) every time.**

3.5.2.1.1 Creating WAR File

Create WAR file for AFW.

This process is always required if the contents or class is re-compiled.

<%im_path%> is the directory installed with Application Runtime.

(1) Create weblogic.xml as follows.

```
<!DOCTYPE weblogic-web-app PUBLIC "-//BEA Systems, Inc.//DTD Web Application 8.1//EN"
"http://www.bea.com/servers/wls810/dtd/weblogic810-web-jar.dtd">

<weblogic-web-app>
   <container-descriptor>
      <filter-dispatched-requests-enabled>false</filter-dispatched-requests-enabled>
   </container-descriptor>
</weblogic-web-app>
```

(2) Copy weblogic.xml into *<%im_path%>*/doc/imart/WEB-INF.

(3) Go to the following directory on the console screen.

<%im_path%>/bin

(4) Execute the following command to create a WAR file.

zippack –o <WAR File Name> <Context Root Path>

[Example]

Windows : zippack -o ..¥imart.war ..¥doc¥imart

UNIX : zippack.sh -o ../imart.war ../doc/imart

By executing this command, a WAR file will be created as <%im_path%>/imart.war.

3.5.2.1.1.1 The way to restrict the infinite loop

Setting (1) and (2) of “3.5.2.1.1 Creating WAR file” is needed in order to restrict infinite loop. If you use AFW in WebLogic, be sure to make this configuration. This configuration must be made before creating the WAR file.

If filter processing of servlet is used in WebLogic Server, when you execute transfer or include by using request dispatcher, the request is re-done. As the result of this, infinite loop will occur.

In WebLogic Server 8.1 SP2 or later version, you can restrict the re-execution of the filter by adding “filter-dispatched-requests-enabled” configuration into weblogic.xml.

Reference URL: http://edocs.beasys.co.jp/e-docs/wls/docs81/notes/resolved_sp02.html#1473934

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3.5.2.1.2 Registering DataSource (JDBC) in WebLogic

This section describes how to configure DataSource using administration console via an example.

(This section describes about Oracle, DB2, SQL Server, and PostgreSQL.)

With regards to Oracle and SQL Server, there is an explanation about the use of BEA WebLogic Type 4 JDBC driver. About PostgreSQL, please install the driver by yourself.

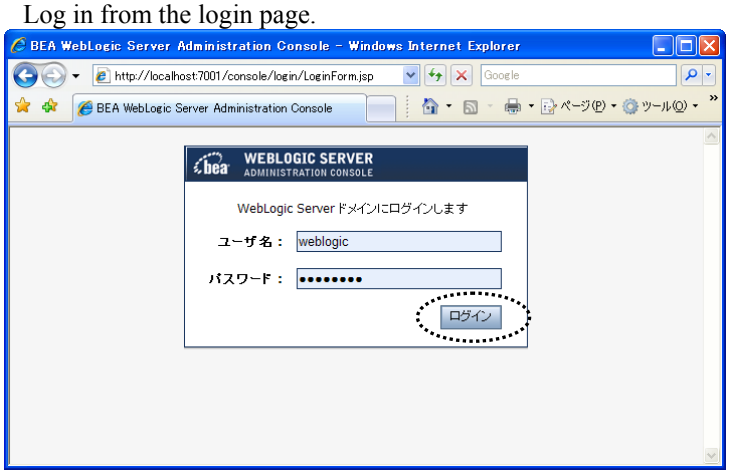
* DataSource needs to be registered only once. It does not need to be repeated at every deployment.
* If a different JDBC driver is installed, please change the settings contents accordingly.

(1) Start up WebLogicServer.

(2) Open the administration console from the browser.

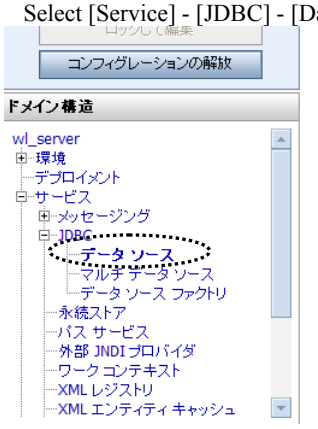
(Example) HThttp://hostTH name:port number/console

(3) Log in from the login page.



(4) Click on [Lock and Edit] in the left menu.

(5) Select [Service] - [JDBC] - [Datasource] on the left menu.



(6) In the [Outline of JDBC datasource] screen, click on [Create New] button.

(7) Create a new JDBC datasource. Here, the name of datasource is “intra-mart DEFAULT” and JNDI name is “jdbc-sample”.

Followings are description about configuration methods of each database.

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3.5.2.1.2.1 In case of Oracle

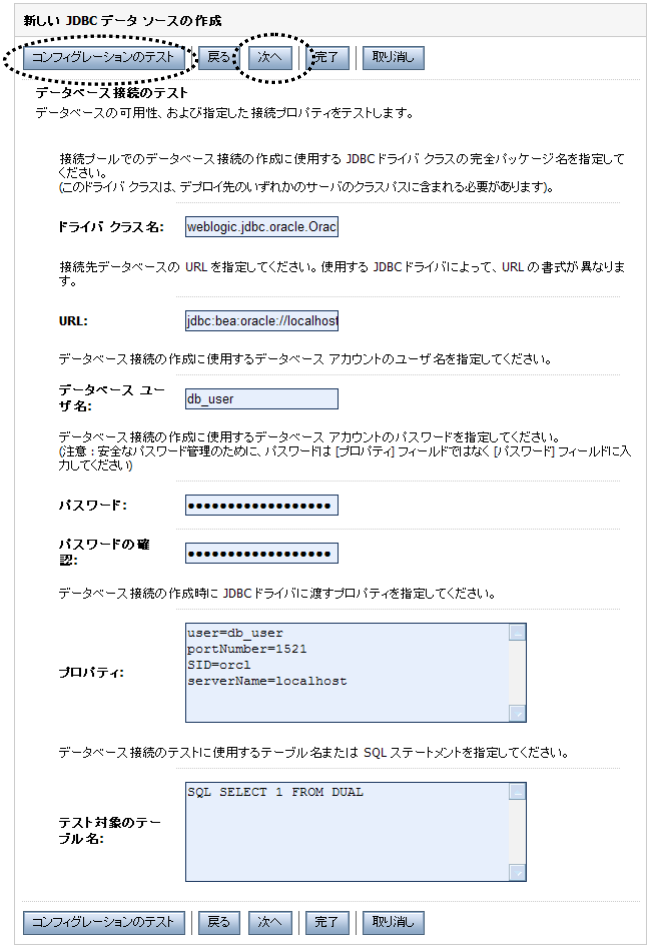
(1) Configure [Name], [JNDI Name], [Database Type] and [Database Driver], and click on [Next] button.

Database Type	Database Driver
Oracle	*BEA's Oracle Driver (Type 4) Versions:9.0.1,9.2.0,10

(2) Click on [Next] button.

(3) Configure [Database Name], [Host Name], [Port], [Database User name] and [Password], and click on [Next] button.

(4) Implement [Configuration test] and click on [Next] button after confirming that connection test is successfully completed. (If you can not pass the test, review the configuration.)



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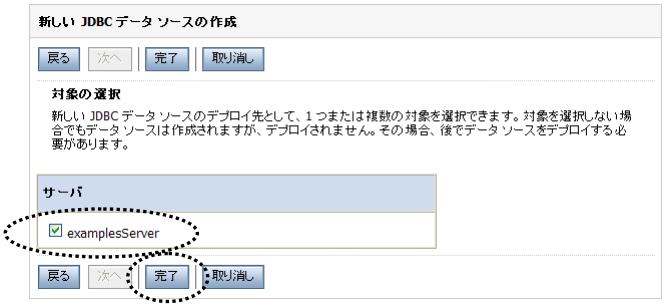
(5) Check the destination of deployment of JDBC datasource, and click on [Complete].



(6) Click on [Activation of the change] in the left menu.

Now, you have completed the registration of JDBC datasource successfully.

3.5.2.1.2.2 In case of DB2

(1) Configure [Name], [JNDI Name], [Database Type] and [Database Driver], and click on [Next] button.

Database type	Database Driver
DB2	*BEA's DB2 Driver (Type 4) Versions:7.X,8.X

(2) Click on [Next] button.

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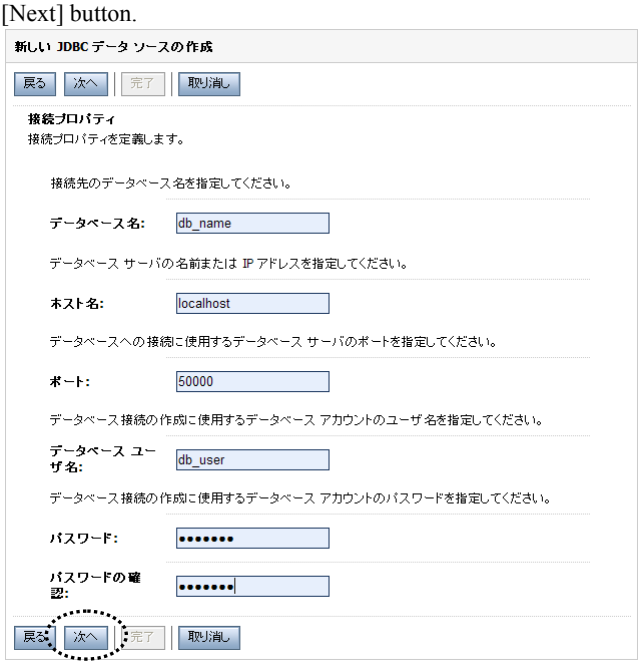
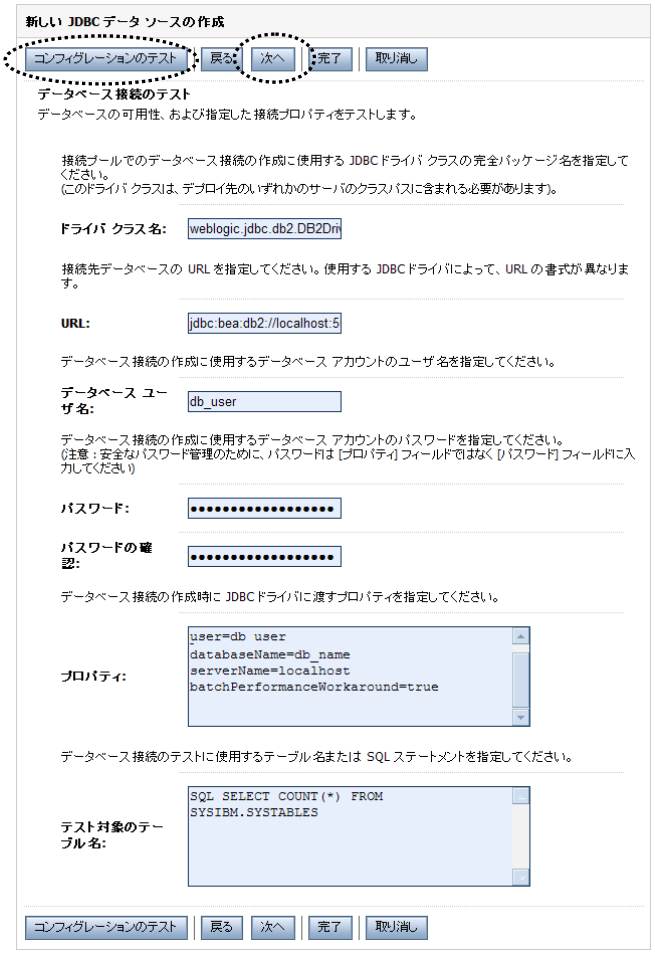
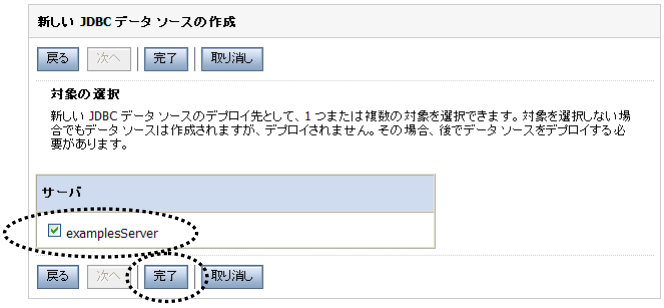
(3) Configure [Database Name], [Host Name], [Port], [Database User name] and [Password], and click on [Next] button.



(4) Implement [Configuration test] and click on [Next] after confirming that connection test is successfully completed. (If you can not pass the test, review the configuration.)



(5) Check the destination of deployment of JDBC datasource, and click on [Complete].



(6) Click on [Activation of the change] in the left menu.

Now, you have completed the configuration of JDBC datasource successfully.

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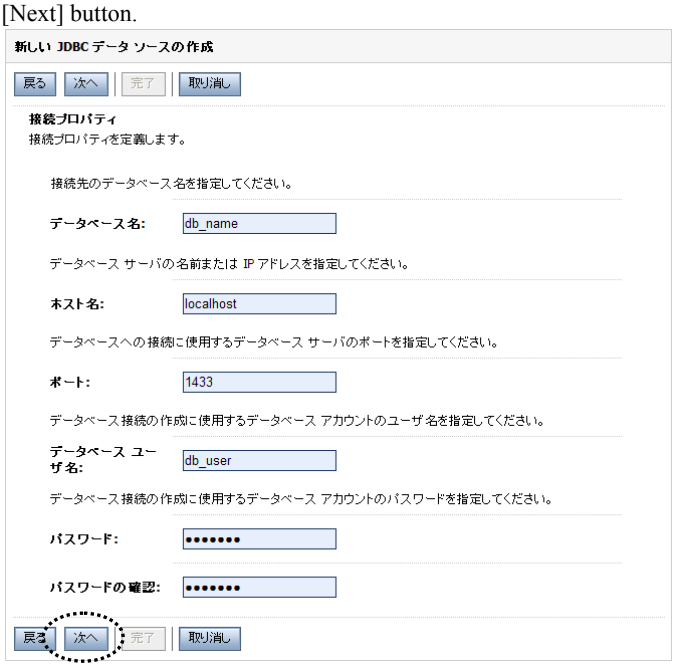
3.5.2.1.2.3 In case of SQL Server

(1) Configure [Name], [JNDI Name], [Database Type] and [Database Driver], and click on [Next]

Database type	Database driver
MS SQL Server	*BEA's MS SQL Server Driver (Type 4) Versions:7.0,2000,2005

(2) Click on [Next] button.

(3) Configure [Database Name], [Host Name], [Port], [Database User name] and [Password], and click on [Next] button.



(4) Implement [Configuration test] and click on [Next] after confirming that connection test is successfully completed. (If you can not pass the test, review the configuration.)

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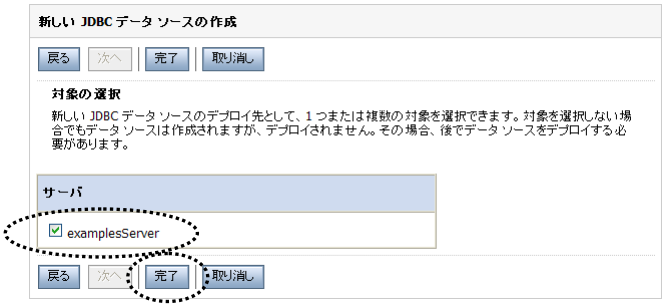
(5) Check the destination of deployment of JDBC datasource, and click on [Complete].



(6) Click on [Activation of the change] in the left menu.

(7)

Now, you have completed the configuration of JDBC datasource successfully.

3.5.2.1.2.4 In case of PostgreSQL

(1) Configure [Name], [JNDI Name], [Database Type] and [Database Driver], and click on [Next] button.

Database type	Database driver
PostgreSQL	PostgreSQL's Driver (Type 4) Versions: Any

(2) Click on [Next] button.

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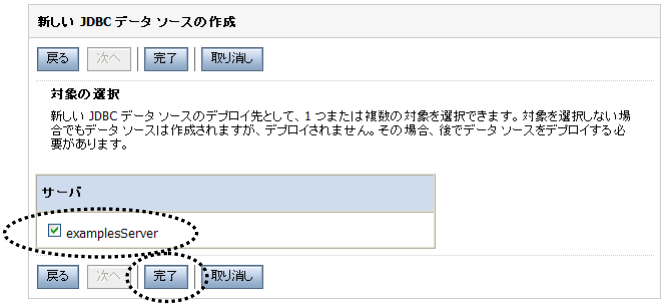
(3) Configure [Database Name], [Host Name], [Port], [Database User name] and [Password], and click on [Next] button.

(4) Implement [Configuration test] and click on [Next] after confirming that connection test is successfully completed. (If you can not pass the test, review the configuration.)

(5) Check the destination of deployment of JDBC datasource, and click on [Complete].



(6) Click on [Activation of the change] in the left menu.

(7)

Now, you have completed the registration of JDBC datasource successfully.

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3.5.2.1.3 WAR File Deployment

Register an intra-mart application on the WebLogic.

Please check if the following operations are completed before the registration.

- AFW has already been installed
- WAR file has been created
- WebLogic is installed.
- Data source configuration has been completed

  Please refer to “3.5.2.1.2 Register DataSource (JDBC) in WebLogic”.
- WAR file has not been deployed yet (If it has already been deployed, delete it).

Once the above-mentioned checks are completed, deploy the WAR file.

(1) Edit data-source.xml.

Edit <% Server Manager root %>/conf/data-source.xml.

Please refer to “3.6.3 data-source.xm” for details.

(2) Start up all servers with AFW.

[Important] If Server Manager and Service Platform (in case of distribution environment) were not started up, deployment cannot be completed.

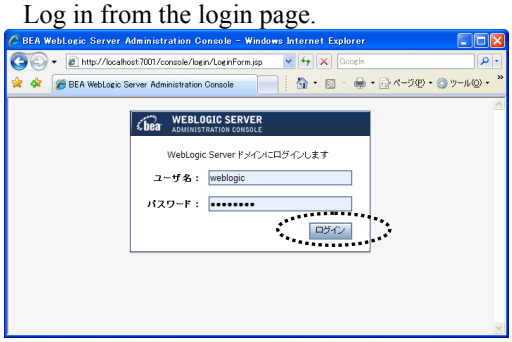
* Please refer to “4 Startup and Shutdown” on starting servers.

(3) Start up WebLogicServer.

(4) Open administration console from a browser.

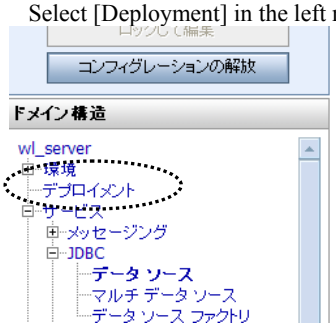
(Example) http://hostname:port number/console

(5) Log in from the login page.

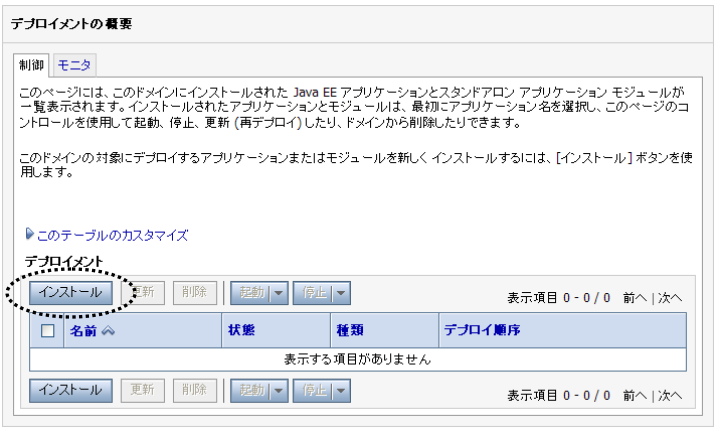


(6) Click on [Lock and Edit] in the left menu.

(7) Select [Deployment] in the left menu.



(8) Click on [Install] in [Outline of Deployment] screen.



(9) Select imart.war which is created in “エラー！ 参照元が見つかりません。 WAR file Creation” and click on [Next] button.

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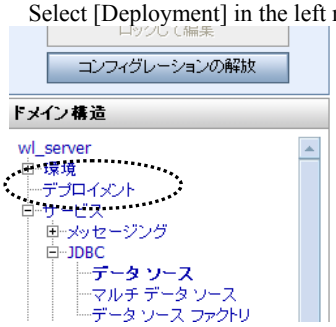
(10) Click on [Next] button.

(11) Click on [Next] button.

(12) Click on [Complete].

(13) Click on [Activation of the change] in the left menu.

(14) Select [Deployment] in the left menu.



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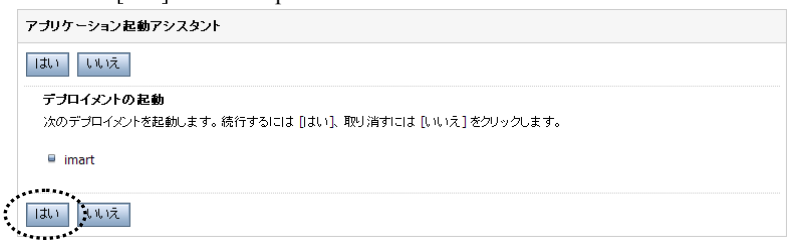
(15) Check [imart] and click on [Process all the request] of [Start] button.

(16) Click on [Yes] and start up.



If “java.lang.IllegalStateException: Server-Manager connect error: Network connection is closed.” occurred, make the starting procedures again.

If “starting request is transmitted to selected deployment” is displayed in the message box, deployment procedures are completed.

3.6 Database Connection Settings

intra-mart connects to Database via JDBC.

Please read the restrictions written on the “Release Note” attached to this product for details on various settings related to the database as well as precautions related to the connection to the database.

3.6.1 Preparation

Prepare an account on the database side of this product to get connected.

Also, make sure to reserve enough table space available for this product to save data.

* Notes when using **Oracle**

Confirm whether **CREATE VIEW Authorization** is attached.

In Oracle Database 10g Release 2 environment, CONNECT role is assigned to only CREATE SESSION authorization but not other related authorizations. It is necessary to assign CREATE VIEW Authorization apparently.

“**Appendix D Creating Tablespace and Users in Oracle10g (P180)**” explains the way of tablespace and user registration. Please refer it.

* Notes when using **Microsoft SQL Server**

It is recommended to configure collating sequence and create database with case sensitivity.

If character code is operated on “UNICODE”, change Column type [VARCHAR] of SQL file under “<% Storage Service root %>/system/basic/” to [NVARCHAR].

* Notes when using **DB2**

Execute db2_extention.sql in <% Root of Storage Service %>/bpw/database/ of the database.

If the above table space has already been created with page size of 32k or more, this step is not necessary.

This sql file creates C:¥imartdb2¥db2file.

Rewrite this file according to the situation and the system environment in which the table space is created using this file.

It is necessary that user needs to be using the connection DB2 when executing.

(The above is for Windows. If other OS is used, edit the file path to be created ([C:¥imartdb2¥db2file] in our example) accordingly.)

* Notes when using **PostgreSQL**

NTT Data intra-mart has only tested operation using the database in which the character encoding is set to ‘UNICODE’.

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3.6.2 http.xml settings

* If you use **IWP (Resin)**, follow the procedures below.

(1) Copy **JDBC driver file (jar or zip)** into **<%im_path%>/lib** directory in which Service Platform was installed in order to make Application Runtime run.

(2) Edit <% Application Runtime root %>/conf/http.xml.

Set <database> tag in the resin/server tag of http.xml according to the database in use. (A sample is shown from the 180P the line of http.xml.)

Edit <%root of Application Runtime%>/conf/http.xml.
In the event of implementing round-robin, configure the service platform that has all the Application Runtime Installed.

■ **In case of Oracle**

```
<database>
  <jndi-name><% Data Source Reference Name %></jndi-name>
  <driver>
    <type>oracle.jdbc.pool.OracleConnectionPoolDataSource</type>
    <url>jdbc:oracle:thin:@<% address of Oracle%>:<%Port Number%>:<%Name of Instance%
></url>
    <user> User Name for database connection </user>
    <password> User password for database connection </password>
  </driver>
  <prepared-statement-cache-size>8</prepared-statement-cache-size>
  <max-connections>20</max-connections>
  <max-idle-time>30s</max-idle-time>
</database>
```

■ **In case of IBM DB2 (Type4 JDBC Driver)**

```
<database>
  <jndi-name><% Data Source Reference Name%></jndi-name>
  <driver>
    <type>com.ibm.db2.jcc.DB2Driver</type>
    <url>jdbc:db2://<% address of DB2%>:<%Port Number%>/<%Database name of
DB2%></url>
    <user> User Name for database connection </user>
    <password> User password for database connection </password>
  </driver>
  <prepared-statement-cache-size>8</prepared-statement-cache-size>
  <max-connections>20</max-connections>
  <max-idle-time>30s</max-idle-time>
</database>
```

■ **In case of Microsoft SQL Server 2000**

```
<database>
  <jndi-name><% Data Source Reference Name%></jndi-name>
  <driver>
    <type>com.microsoft.jdbc.sqlserver.SQLServerDriver</type>
    <url>jdbc:microsoft:sqlserver://<%Address of SQL Server%>:<%Port
Number%>;DatabaseName=<%Database name%></url>
    <user> User Name for database connection </user>
    <password> User password for database connection </password>
    <init-param>
      <param-name>SelectMethod</param-name>
      <param-value>Cursor</param-value>
    </init-param>
  </driver>
  <prepared-statement-cache-size>8</prepared-statement-cache-size>
  <max-connections>20</max-connections>
  <max-idle-time>30s</max-idle-time>
</database>
```

■ **In case of Microsoft SQL Server 2005**

```
<database>
  <jndi-name><% Data Source Reference Name %></jndi-name>
  <driver>
    <type>com.microsoft.sqlserver.jdbc.SQLServerDriver</type>
    <url>jdbc:sqlserver://<%Address of SQL Server%>:<%Port
number%>;DatabaseName=<%Database name%></url>
    <user> User Name for database connection </user>
    <password> User password for database connection </password>
    <init-param>
      <param-name>SelectMethod</param-name>
      <param-value>cursor</param-value>
    </init-param>
  </driver>
  <prepared-statement-cache-size>8</prepared-statement-cache-size>
  <max-connections>20</max-connections>
  <max-idle-time>30s</max-idle-time>
</database>
```

■ **In case of PostgreSQL**

```
<database>
  <jndi-name><% Data Source Reference Name %></jndi-name>
  <driver>
    <type>org.postgresql.Driver</type>
    <url>jdbc:postgresql://<%Address of PostgreSQL%>:<%Port
  Number%>/<%DatabaseName%></url>
   <user> User Name for database connection </user>
    <password> User password for database connection </password>
  </driver>
  <prepared-statement-cache-size>8</prepared-statement-cache-size>
  <max-connections>20</max-connections>
  <max-idle-time>30s</max-idle-time>
</database>
```


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3.6.3 data-source.xml Settings

Edit <% Server Manager root %>/conf/data-source.xml.

```
<?xml version="1.0" encoding="UTF-8"?>
<data-source>

    <system-data-source>
        <connect-id>default</connect-id>
        <resource-ref-name>java:comp/env/<%Reference Name of Data Source%></resource-ref-name>
    </system-data-source>

    <group-data-source>
        <login-group-id>default</login-group-id>
        <resource-ref-name>java:comp/env/<%Reference Name of Data Source %></resource-ref-name>
    </group-data-source>

</data-source>
```

(Example: in case of IWP (Resin))

When the reference name of data source set in Chapter 3.6.2 "http.xml Settings" is "**jdbc/sample**",

<resource-ref-name>**java:comp/env/jdbc/sample**</resource-ref-name>.

(Example: in case of IWP (JBoss))

When the reference name of data source set in Chapter 3.4.2.3 "Datasource Settings" is "**jdbc/sample**",

<resource-ref-name>**java:jdbc/sample**</resource-ref-name>.

(Example: in case of using IBM WebSphere Application Server 6.1 in AFW)

When the JNDI name of data source set in Chapter 3.5.1.2.2.4 "Datasource settings" **is "jdbc/sample"**,

<resource-ref-name>**jdbc/sample**</resource-ref-name>.

(Example: in case of using BEA WebLogic Server 10 in AFW)

When the reference name of data source set in Chapter 3.5.2.1.2 "Registering DataSource (JDBC) in WebLogic" is "**jdbc-sample**",

<resource-ref-name>**jdbc-sample**</resource-ref-name>.

3.7 About JavaMail and JAF (Javabeans Activation Framework)

The following libraries are required in order to use API for sending mails, which is provided by intra-mart.

- JavaMail 1.2
- JAF(Javabeans Activation Framework) 1.0.1

The above libraries are also installed at the same time of installation of intra-mart. If you use intra-mart, it means you admit the above libraries' license. If you do not agree all of these clauses, delete all the JAR files.

The latest module can be downloaded from the URL below. (As of 31/07/2007)

JavaMail	http://java.sun.com/products/javamail/index.jsp
JAF	http://java.sun.com/products/javabeans/jaf/downloads/index.html

Copy the extracted library to the directory below. If you implement round robin processing, copy them to Service Platform in which all the Application Runtime is installed.

<% Application Runtime root %>/doc/imart/WEB-INF/lib/

- activation.jar
- imap.jar
- mail.jar
- mailapi.jar
- pop3.jar
- smtp.jar

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4 Startup and Shutdown

4.1 About the Order of Startup and Shutdown

4.1.1 In case of intra-mart WebPlatform (Resin)

There will be some differences in the startup and shutdown order. Although the server should operate properly even if the appropriate order is not followed, there is a possibility that a network error may occur when Application Server (on which Application Runtime is running) starts up (The network error will be recorded in the error log).

■ **Startup Order for Servers (Recommended)**

(1) Server Manager
(2) Service Platform

■ **Shutdown Order for Servers (Recommended)**

(1) Service Platform
(2) Server Manager

4.1.2 In case of intra-mart WebPlatform (JBoss)

There will be some differences in the startup and shutdown order, depending on the server structure (i.e. either standalone or distributed network system, etc.).
Although the server should operate properly even if the appropriate order is not followed, there is a possibility that a network error may occur when JBoss starts up (The network error will be recorded in the error log).

■ **In case of Standalone System**

Startup Order for Servers (Recommended)

(1) Server Manager
(2) JBoss(all the Service Platform)

Shutdown Order for Servers (Recommended)

(1) JBoss(all the Service Platform)
(2) Server Manager

■ **In case of Distributed Network System**

Startup Order for Servers (Recommended)

(1) Server Manager
(2) Service Platform
(3) JBoss(Application Runtime)

Shutdown Order for Servers (Recommended)

(1) JBoss(Application Runtime)
(2) Service Platform
(3) Server Manager

4.1.3 In case of intra-mart AppFramework

There will be some differences in the startup and shutdown order, depending on the server structure (i.e. either standalone or distributed network system, etc.).

Although the server should operate properly even if the appropriate order is not followed, there is a possibility that a network error may occur when Application Server (on which Application Runtime is running) starts up (The network error will be recorded in the error log).

- **In case of Standalone System**

  Startup Order for Servers (Recommended)

  (1) Server Manager

  (2) Application Server(all the Service Platform)

  Shutdown Order for Servers (Recommended)

  (1) Application Server(all the Service Platform)

  (2) Server Manager

- **In case of Distributed Network System**

  Startup Order for Servers (Recommended)

  (1) Server Manager

  (2) Service Platform

  (3) Application Server (Application Runtime)

  Shutdown Order for Servers (Recommended)

  (1) Application Server (Application Runtime)

  (2) Service Platform

  (3) Server Manager

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4.2 How to Startup and Shutdown of Server Manager / Service Platform

4.2.1 Windows Environment

4.2.1.1 Starting up from Start Menu

When installation is done on Windows, the menu to start Server will be added in the command prompt.

- **In case of IWP (Resin)**
  [Start Menu] - [Program] - [intra-mart WebPlatform Ver6.1]
  intra-mart Server Manager
  intra-mart Service Platform

- **In case of IWP (JBoss)**
  [Start Menu] - [Program] - [intra-mart WebPlatform Ver6.1]
  intra-mart Server Manager
  intra-mart Service Platform (Only with distributed system)

- **In case of AFW**
  [Start Menu] - [Program] - [intra-mart AppFramework Ver6.1]
  intra-mart Server Manager
  intra-mart Service Platform (Only with distributed system)

The following batch file is the actual start menu.

Server Manager : %path installed with server%¥bin¥**manager.bat**
Service Platform : %path installed with server%¥bin¥**server.bat**

Though there is no need to edit each .bat file with this product, please edit .bat file of each server when start-up command of each server needs to be changed.

Startup of Server Manager is completed when **[Server-Manager started offer of service]** is displayed on the command prompt.
Startup of Service Platform is completed when **[Service-Platform started offer of service]** is displayed on the command prompt.

To stop, press **[Ctrl+C]** key at the command prompt.

4.2.1.2 When Running as Windows Service

It is possible to register each server (Server Manager and Service Platform) as a Windows service program.

4.2.1.2.1 Notes

- In case of operation as Window's service, the server may stop by log-out after starting the service. In order to prevent this, configure each server as follows.

  Add -Xrs option to "**intra-mart/platform/java/server/command/option**" in the **<%im_path%>/conf/imart.xml.**

  First, start up each server using command prompt immediately after installation, then check if it operates properly. And then register the service (Please refer to "4.2.1.2.3 Converting Server into Service" for details).

- It is recommended to run using command prompt during program development.
  (It will be useful to solve problems, since error messages will be outputted on command prompt)

4.2.1.2.2 Starting up intra-mart ServiceManager

Use **intra-mart ServiceManager** to register each server as a Windows service program.

When intra-mart is installed on Windows, the startup menu of **intra-mart ServiceManager** will be added.
Please start up intra-mart Service Manager using the following startup menu.

- **In case of IWP**
  [Start menu] - [program] - [intra-mart WebPlatform Ver6.1] - [Admin Tools]
  intra-mart ServiceManager

- **In case of AFW**
  [Start menu] - [Program] - [intra-mart AppFramework Ver6.1] - [Admin Tools]
  intra-mart ServiceManager

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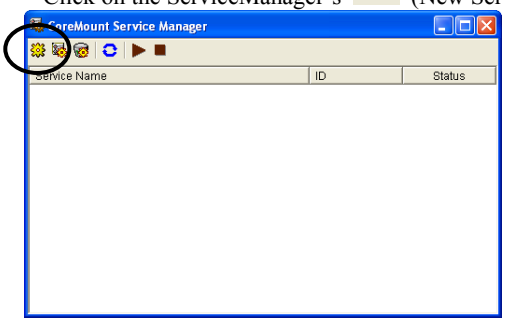
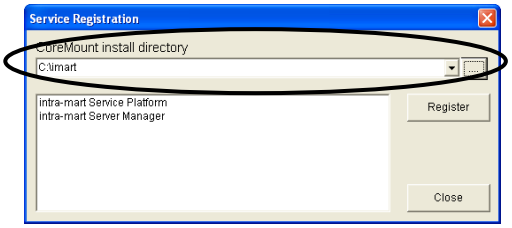
4.2.1.2.3 Converting Server into Service

After starting up intra-mart ServiceManager, please convert the server into a service in the following manner.

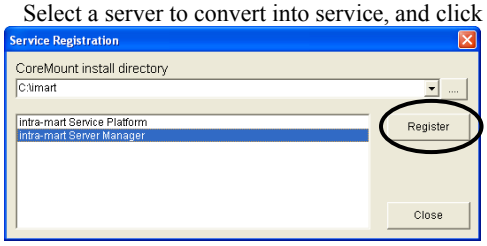
(1) Click on the ServiceManager's (New Service Registration) button.



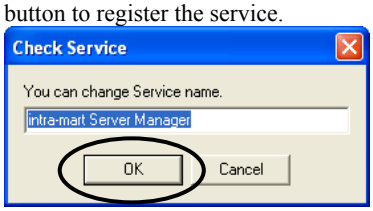
(2) Enter the path where the server is installed into [intra-mart Install Directory].
(Click on the button to select from the directory.)
Servers that can be converted into services will be displayed.



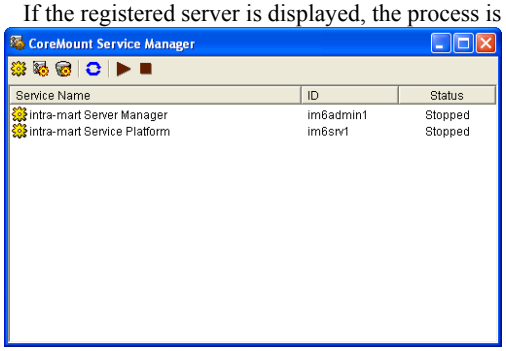
(3) Select a server to convert into service, and click on the [Register] button.



(4) "Check Service" page will be displayed. Please change the service name if required. Click on the [OK] button to register the service.



(5) If the registered server is displayed, the process is completed.



4.2.1.2.4 Setting file of Service Activation

Setting files to make intra-mart operate as a service of Windows are prepared as follows.

- ServerManager's Setting file of Service Activation
  - ***<%im_path%>*/bin/MgrService.ini**
- ServicePlatform's Setting file of Service Activation
  - ***<%im_path%>*/bin/SrvService.ini**

Setting items of setting file of Service Activation are as follows.

Setting items	Explanation
jdk_home	Home directory of JDK
class	Start up class
options	Java activation option
log	Log output option

4.2.1.2.4.1.1 About setting item "jdk_home"

Operation about "**jdk_home"** is as follows.

- In case of configuring **jdk_home** in setting file of Service Activation
  By using <%Setting directory of **jdk_home**%>/bin/java.exe, Windows service is started up.
- If the setting of **jdk_home** in setting file of service activation is omitted, OS environment variable "**JAVA_HOME**" is regarded as home directory of JDK.
- If OS environment variable "**JAVA_HOME**" is not configured, current JDK home directory is obtained from the registry.

4.2.1.2.4.1.2 Log output option

When intra-mart is started up in Windows service, the log is output as follows.

4.2.1.2.4.1.2.1 ServerManager Log file

Log file	Explanation
***<%im_path%>*/log/MgrService/environment.log**	Environmental log when starting service
***<%im_path%>*/log/MgrService/stderr.log**	Log of standard error when starting up
***<%im_path%>*/log/MgrService/stdout.log**	Log of standard output when starting up**(*1)**

4.2.1.2.4.1.2.2 ServicePlatform Log file

Log file	Explanation
***<%im_path%>*/log/SrvService/environment.log**	Environmental log when starting service
***<%im_path%>*/log/SrvService/stderr.log**	Log of standard error when starting up
***<%im_path%>*/log/SrvService/stdout.log**	Log of standard output when starting up**(*1)**

(*1) stdout.log is output only when configuring a setting item, "**log**", of setting file of service activation as "**true**".

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4.2.2 UNIX OS Environment

4.2.2.1 When Operating on Shell

4.2.2.1.1 Startup / Termination of Server Manager

Start up shell.

Go to **<%im_path%>**/bin and execute the following command.

manager.sh ↵

If a message **[Server-Manager started offer of service]** is displayed on the command prompt, start-up is completed.

* The message will be displayed only when system log output is enabled (enabled by default).

(Notes) The start command file (manager.sh) available at the time of installation is a sample.
It must be changed according to the environment.

Press **[Ctrl+C]** key on shell to terminate.

4.2.2.1.2 Startup / Termination of Service Platform

Start up shell.

Go to **<%im_path%>**/bin and execute the following command.

server.sh ↵

If a message **[Service-Platform started offer of service]** is displayed on the command prompt, start-up is completed.

* The message will be displayed only when system log output is enabled (enabled by default).

(Notes) The start command file (server.sh) available at the time of installation is a sample.
It must be changed according to the environment.

Press **[Ctrl+C]** key on shell to terminate.

4.2.2.2 In case of Background Execution

It is possible for each server (Server Manager, Service Platform) to execute in the background.

4.2.2.2.1 Notes

- First, start up each server using shell immediately after installation. After checking that it operates properly, implement the following background execution.
  (Please refer to "4.2.2.2.2 Background Execution of Server Manager" and "4.2.2.2.3 Background Execution of Service Platform" for details)
- It is recommended to run it using shell during the program development.
  (It will be useful in solving problems, since error messages will be output on shell)
- Every shell file example will have an **example of start command** for background execution written in **comment (#).** For background execution, please use it by changing with reference to the **comments (#).**

4.2.2.2.2 Background Execution of Server Manager

<%im_path%>/bin directory contains the following files.

manager.sh (shell file sample)

* Since manager.sh is a sample of background execution,
Please make use of it by changing its file name and content according to the system environment.

- **How to Start Up (Example)**

  Start : **manager.sh start**

  Stop : **manager.sh stop**

4.2.2.2.3 Background Execution of Service Platform

<%im_path%>/bin directory contains the following files.

server.sh (shell file sample)

* server.sh is a sample of background execution,
Please make use of it by changing its file name and content according to the system environment.

- **How to Start Up (Example)**

  Start : **server.sh start**

  Stop : **server.sh stop**

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4.3 How to Start up and Shutdown of JBoss

JBoss needs to be started up only when using intra-mart WebPlarform (JBoss).

When you start up JBoss, both Server Manager and ServicePlatform (only in case of distributed system) also need to be started up

In this chapter, a directory in which JBoss is installed is expressed as ***<%JBoss_path%>.***

To start JBoss, go to ***<%JBoss_path%>***/bin and execute following command.

run –c imart ↵

[Example]

Windows : run -c imart

UNIX : run.sh -c imart

To stop JBoss, go to ***<%JBoss_path%>***/bin and execute following command.

shutdown -S ↵

[Example]

Windows : shutdown -S

UNIX : shutdown.sh -S

4.4 How to Startup and Shutdown of Application Server

If you use AFW, Application Server needs to be started up.

(Application Server means WebSphere and WebLogic.)

Application Runtime can be started up on Application Server. When starting Application Runtime, both Server Manager and ServicePlatform (only in case of distributed system) also need to be started up.

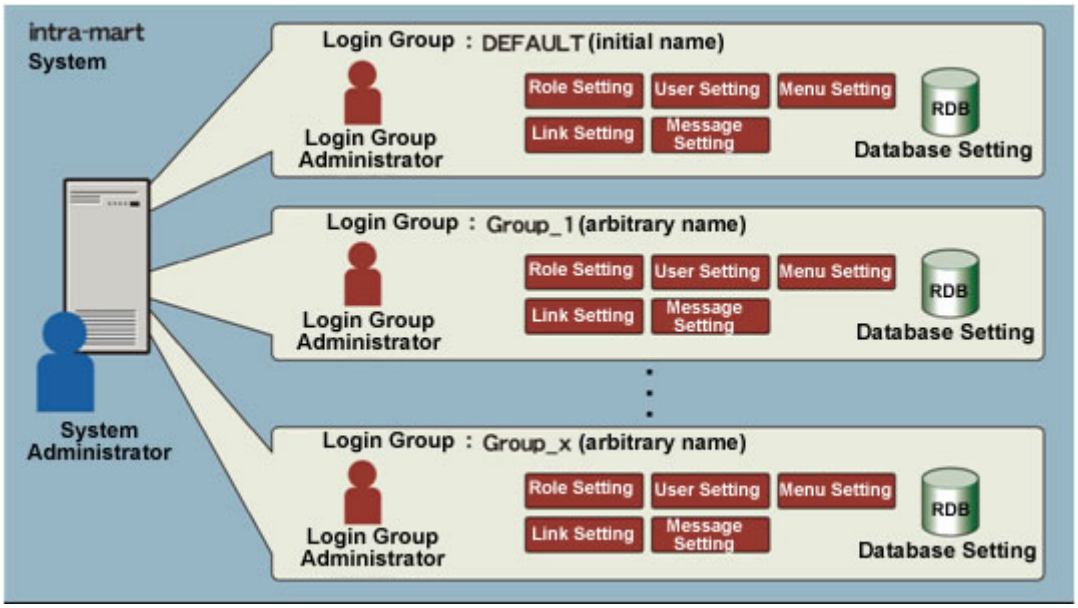
Please refer to the manual of each Application Server on how to start up and shut down them.

4.4.1 How to Setup Headless Mode

Since some OS without X11 such as UNIX do not support graphics, you can not use normal graph module in this case. However, if Java VM supporting headless mode is used, it is possible to display graph module or work flow even in non-graphic environment by setting Java environment variable "**java.awt.headless**" as true.

5 Login to intra-mart

In intra-mart Ver6.1, each user group who share the system is called “Login Group”, and its administrator is called “Login Group Administrator”. And “System Administrator” is in charge of overall control of these “Login Group” and “Login Group Administrator”.



In this chapter, the steps to login intra-mart as Login Group Administrator are explained.

(1) Login as System Administrator

(Please refer to Chapter 5.1 “Login as System Administrator” for details.)

(2) Create Login Group

(Please refer to Chapter 5.2 "Creating Login Group” for details.)

(3) Import Initial Data

(Please refer to Chapter 5.3 “Importing Initial Data” for details.)

(4) Login as Login Group Administrator

(Please refer to Chapter 5.4 “Login as Login Group Administrator” for details.)

■ Please refer to the following guides enclosed in this product for further understanding on intra-mart.

- Tutorial guide
- Administrator Guide
- Programming Guide

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5.1 Login as System Administrator

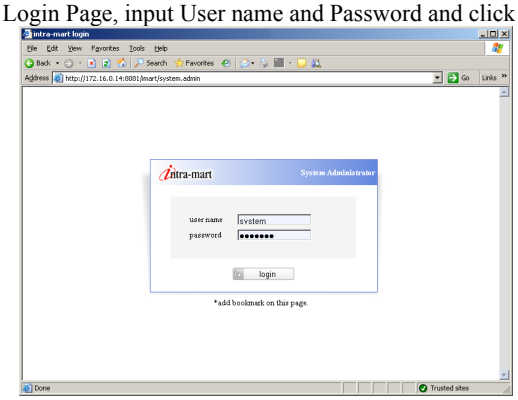
The following steps are for System Administrator to login to intra-mart.

(1) Issue URL as below from the browser.

http:// Host Name: Port Number / Alias Name / system.admin

(e.g.) http://hostname:8080/imart/system.admin

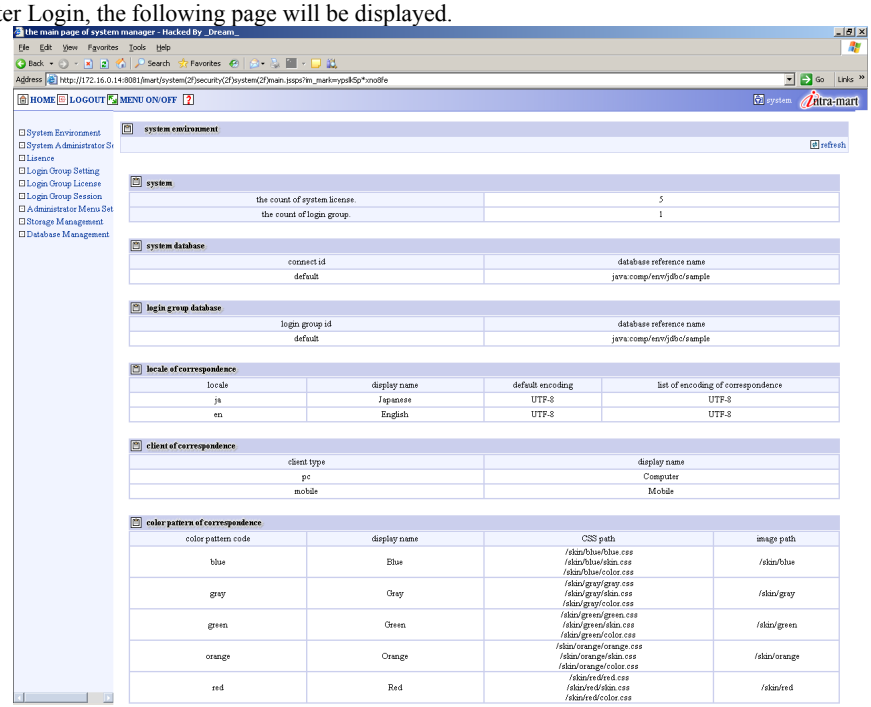
(2) On Login Page, input User name and Password and click on [Login] button.



Right after the installation, User name and Password of System Administrator are set as follows.

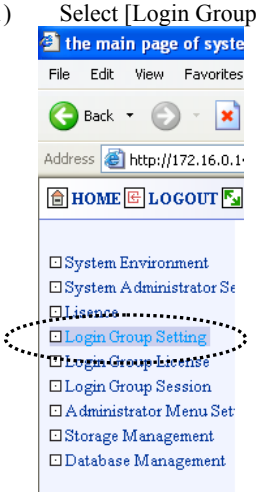
User name	system
Password	manager

After Login, the following page will be displayed.

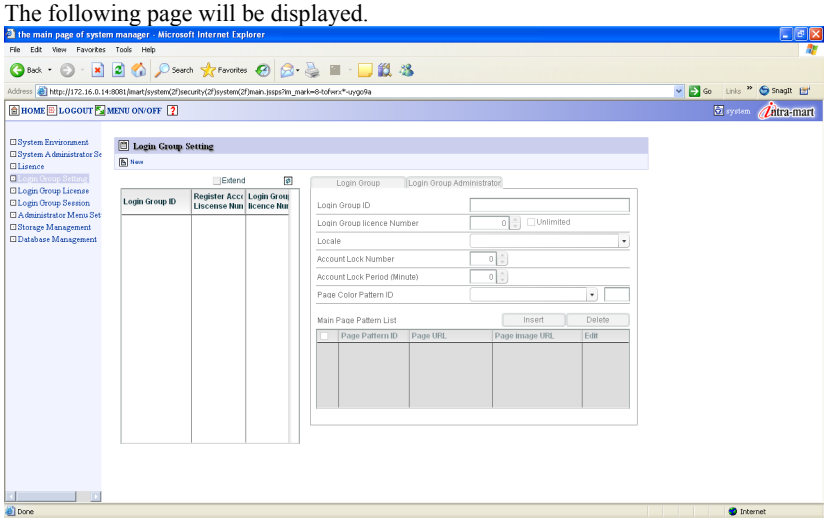


5.2 Creating Login Group

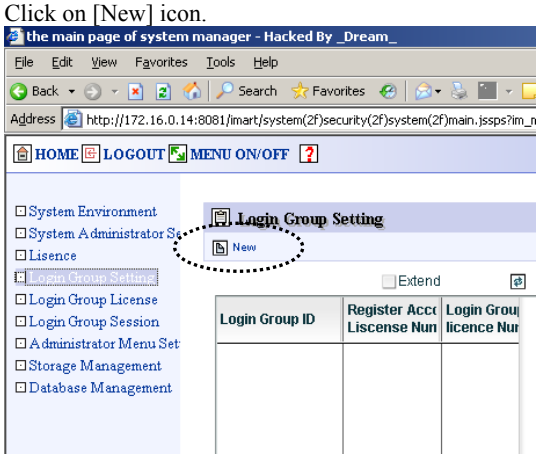
(1) Select [Login Group Setting] Menu.



The following page will be displayed.



(2) Click on [New] icon.



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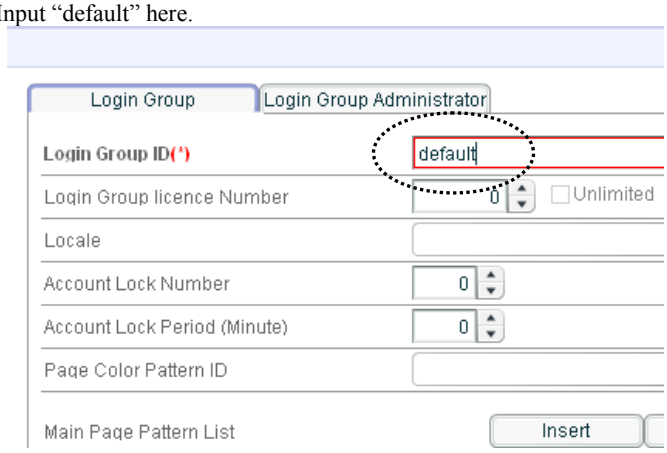
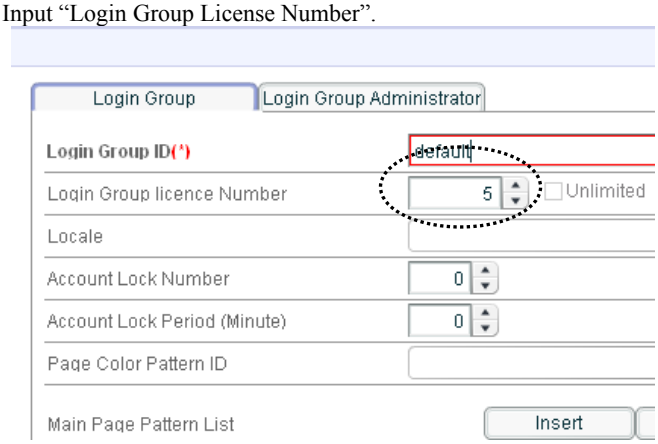
(3) Input “Login Group ID”.

This is same as the setting of “data-source/group-data-source/login-group-id” in <% Server Manager root %>/conf/data-source.xml.

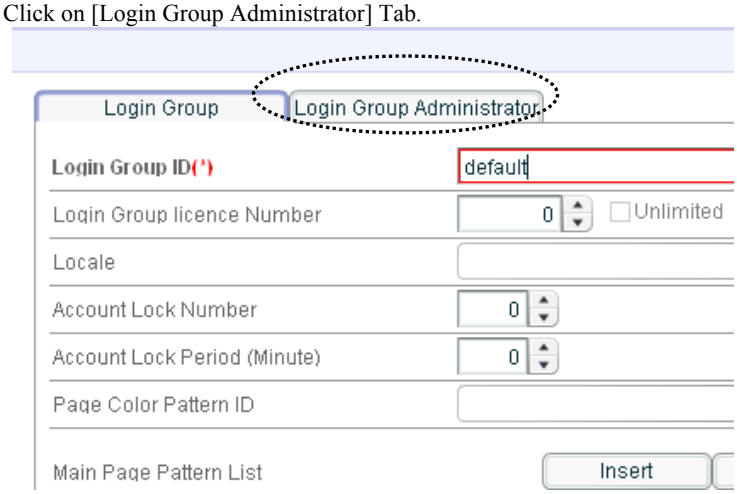
Input “default” here.



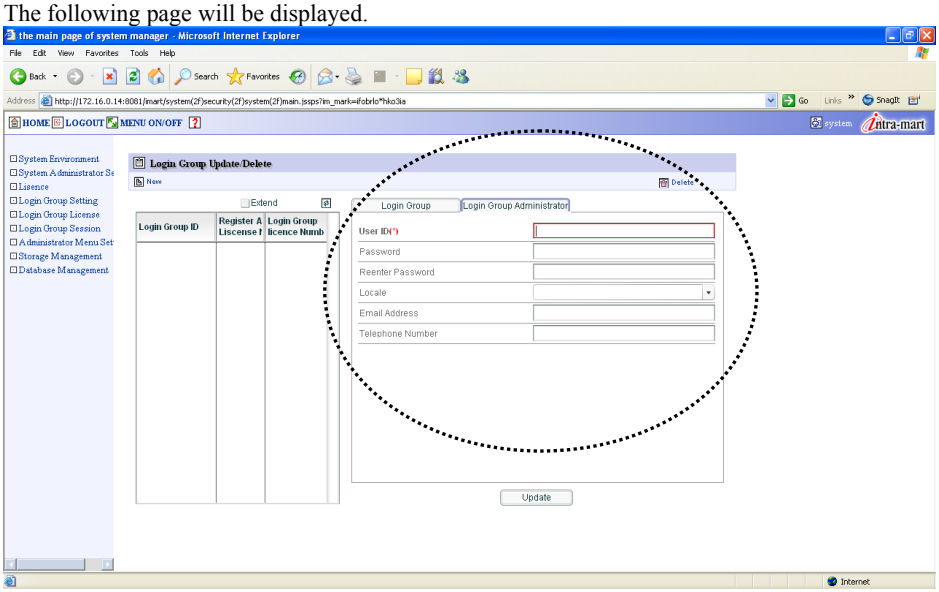
(4) Input “Login Group License Number”.



(5) Click on [Login Group Administrator] Tab.

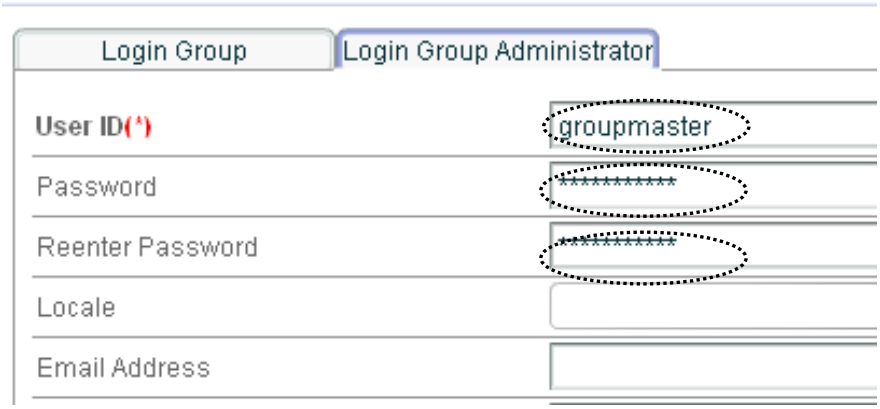


The following page will be displayed.

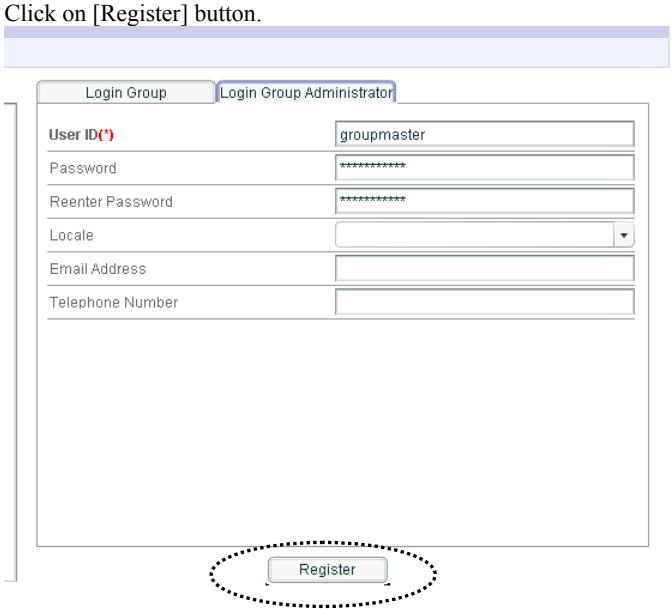


(6) Input “User ID”, “Password”, and “Reenter Password”.

Here, input “groupmaster” as User ID and Password.



(7) Click on [Register] button.



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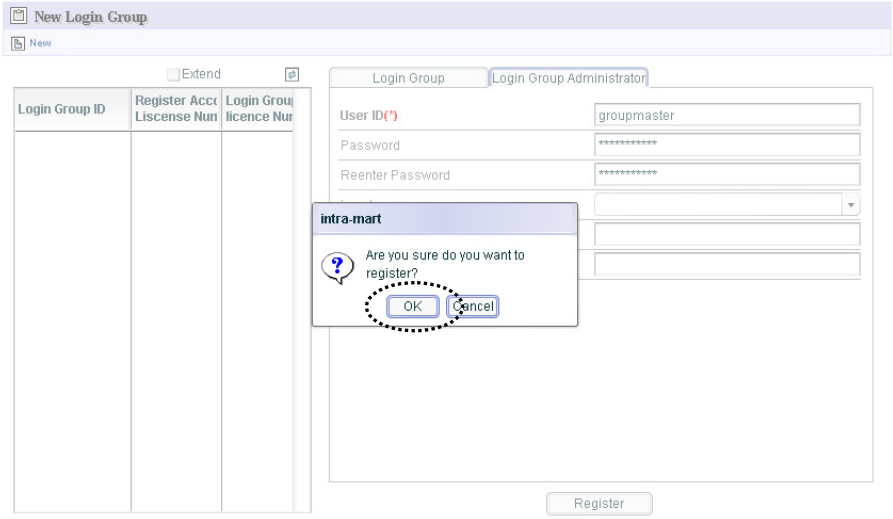
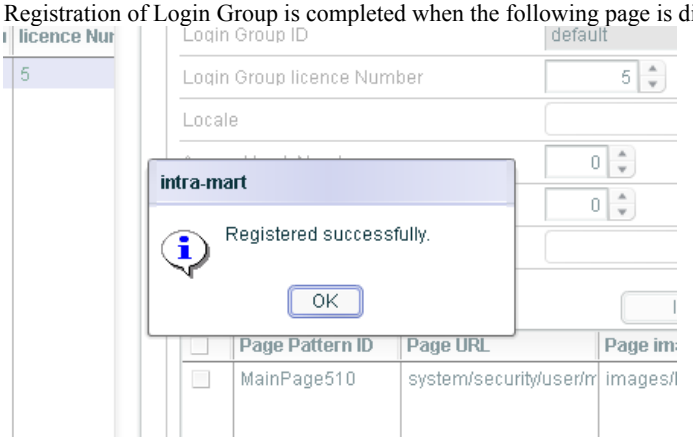
(8) Click on [OK] button.

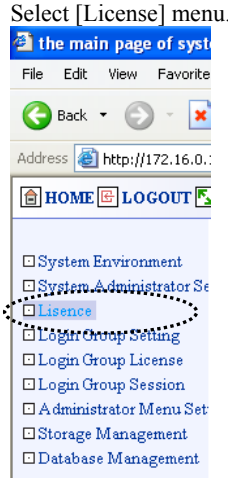


Registration of Login Group is completed when the following page is displayed.

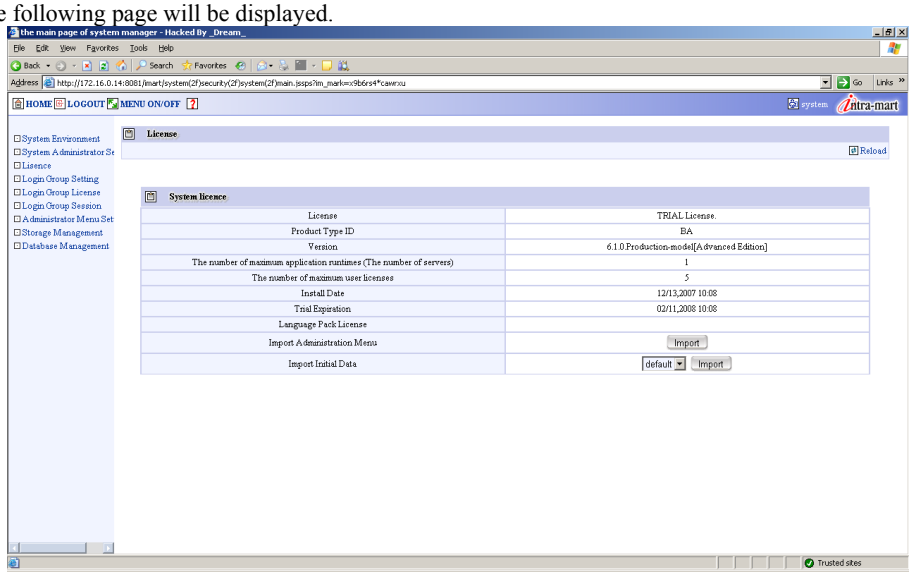


5.3 Importing Initial Data

(1) Select [License] menu.

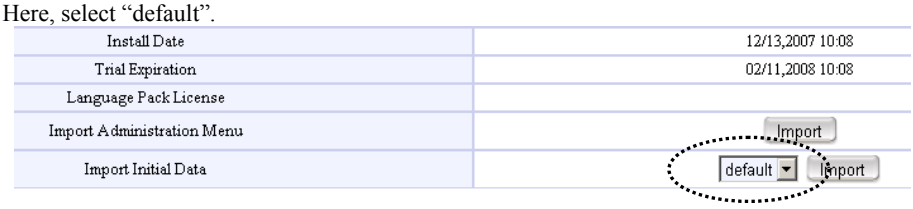


The following page will be displayed.



(2) In the combo box of [Import Initial Data] column, select the Login Group to be imported.

Here, select “default”.



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(3) Click on [Import] button.

Install Date	12/13,2007 10:08
Trial Expiration	02/11,2008 10:08
Language Pack License	
Import Administration Menu	Import
Import Initial Data	default Import

Importing of initial data is completed when the following page is displayed.

System licence/Initial data importResult

Back to License Screen

Item	Result
Create Table (Database)	Create table successfully. system/basic/appCreateTable.sql system/basic/logCreateTable.sql system/basic/bpwCreateTable.sql system/basic/itemCreateTable.sql system/basic/portalCreate.sql system/basic/vcCreateTable.sql system/basic/tmCreateTable.sql
Role	Data imported completely. system/basic/init-role.xml system/basic/init-role_en.xml system/basic/init-role-bpw.xml system/basic/init-role-bpw_en.xml
Account	Data imported completely. system/basic/init-account.xml system/basic/init-account_en.xml
Menu	Data imported completely. system/basic/init-menu.xml system/basic/init-menu_en.xml system/basic/init-menu-item.xml system/basic/init-menu-item_en.xml system/basic/init-menu-portal.xml system/basic/init-menu-portal_en.xml system/basic/init-menu-bpw.xml system/basic/init-menu-bpw_en.xml
Calendar	Data imported completely. system/basic/init-calendar.xml system/basic/init-calendar_en.xml
Batch	Data imported completely. system/basic/init-batch-bpw.xml system/basic/init-batch-bpw_en.xml system/basic/init-batch-master.xml system/basic/init-batch-master_en.xml
Access Controller	Data imported completely. system/basic/init-access-controller.xml system/basic/init-access-controller_en.xml
Create Record (Database)	Data imported completely. system/basic/appInsert.sql system/basic/appInsert_en.sql system/basic/bpwInsert.sql system/basic/portalInsert.sql system/basic/itemInsert.sql system/basic/itemInsert_en.sql
Extended Import (Program)	Data imported completely. bpw/init.js system/init/distribute_batch_config.js system/init/import_vc_data4log.js

5.4 Login as Login Group Administrator

The following steps are for Login Group Administrator to login to intra-mart.

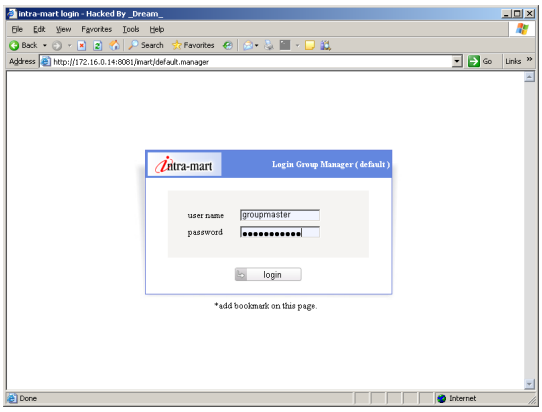
(1) Issue URL as below from the Browser.

http:// Host Name: Port Number / Alias Name / Login group ID.manager

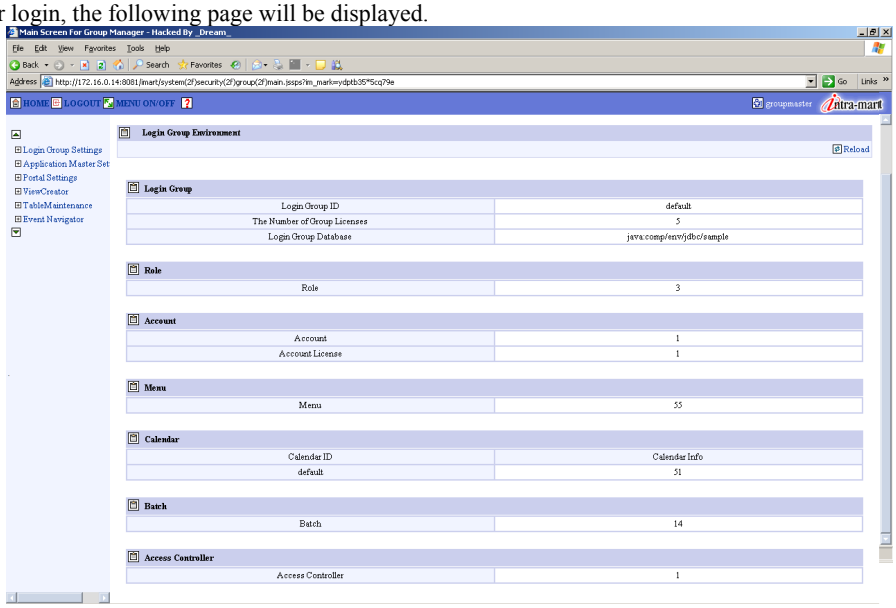
(e.g.) http://hostname:8080/imart/default.manager

(2) On the Login Page, input the User name and Password then click on [Login] button.

Here, input the User name and Password of Login Group Administrator as set in “5.2. Creating Login Group (6)”.



After login, the following page will be displayed.



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- **Creating User Program**
  - **In case of Script Development Model**

    Create "**.html**" file and "**.js**" file under **<%im_path%>/pages/src** (in which Resource Service is installed) and then register ([Login Group Administration] - [Menu] - [Menu Setting] of Login Group Administrator.) at the Menu Setting Page.

  - **In case of JavaEE Development Model**

    Create JSP file under **<%im_path%>/doc/imart.**

    Create servlet and other Java classes under **<%im_path%>/doc/imart/WEB-INF/classes** and "**jar**" file under **<%im_path%>/doc/imart/WEB-INF/lib**.

    These files placed under "…/classes" or "…/lib" will be automatically added to the class path.

* Please refer to the separate volume, "Programming Guide (Script Development Model)" and "Programming Guide (JavaEE Development Model)" for more details.

6 Using the Management Tool “intra-mart Administrator”

Intra-mart Administrator can manage remotely from any computer even if that computer is not running the Server Module.

* Please refer to the separate volume, “Administrator Guide” for details.

6.1 Start Up intra-mart Administrator

6.1.1 Windows Environment

Execute on the computer in which intra-mart Administrator is installed.

When installation is done on Windows, the Start Menu is added in the command prompt.

- **In case of IWP**

  Intra-mart Administrator of **[Start menu] - [Program] - [intra-mart WebPlatform Ver6.1] - [Admin Tools]**

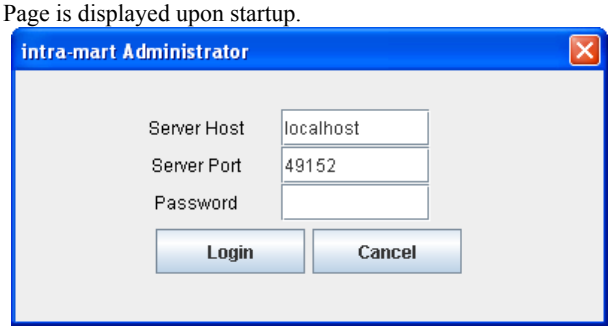
- **In case of AFW**

  Intra-mart Administrator of **[Start menu] - [Program]- [intra-mart AppFramework Ver6.1] - [Admin Tools]**

The batch file below contains the Start Menu.

intra-mart Administrator : **<%im_path%>/bin/admin.bat**

Login Page is displayed upon startup.



Server Host	Specify address of computer where Server Manager is installed.
Server Port	Port Number of Server Manager (Default: 49152)
Password	intramart (Initial Setting)

With the above, login can be completed.

Please change password (optional) from the Menu after login.

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6.1.2 UNIX OS Environment

It can be used only on machines where Xwindow is loaded.

Execute on the computer where intra-mart Administrator is installed.

Start another Shell.

Go to **<%im_path%>/bin** and execute the following command.

admin.sh ↵

Login Page will be displayed upon startup.

Server Host	Specify address of computer where Server Manager is installed.
Server Port	Port Number of Server Manager (Default: 49152)
Password	intramart (Initial Setting)

With the above, login can be completed.

Please change password (optional) from the Menu after login.

7 Sample Data Input

Inputting sample data into intra-mart would help further understanding the whole image of using intra-mart.

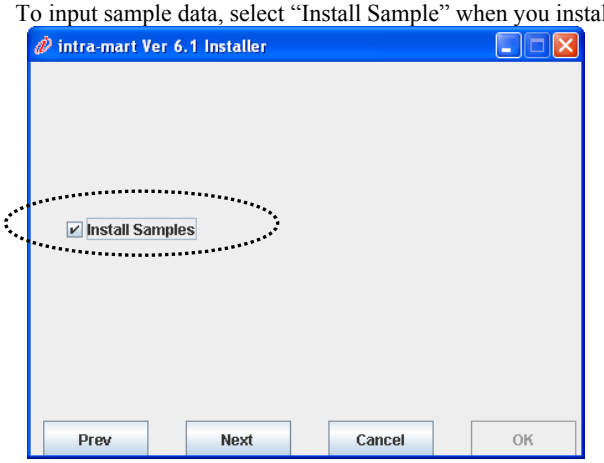
7.1 Notes

In order to input sample data, “Install Sample” needs to be selected upon installation.
Sample data must be input into where is no data.
(Directly after installing this product or after creating login group)

If inputting sample data after the operation, data might be broken.
If you would like to input sample data after the operation, create a new login group for sample or install this product in different environment and input sample data there.

7.2 Setting for Installation

To input sample data, select “Install Sample” when you install intra-mart.



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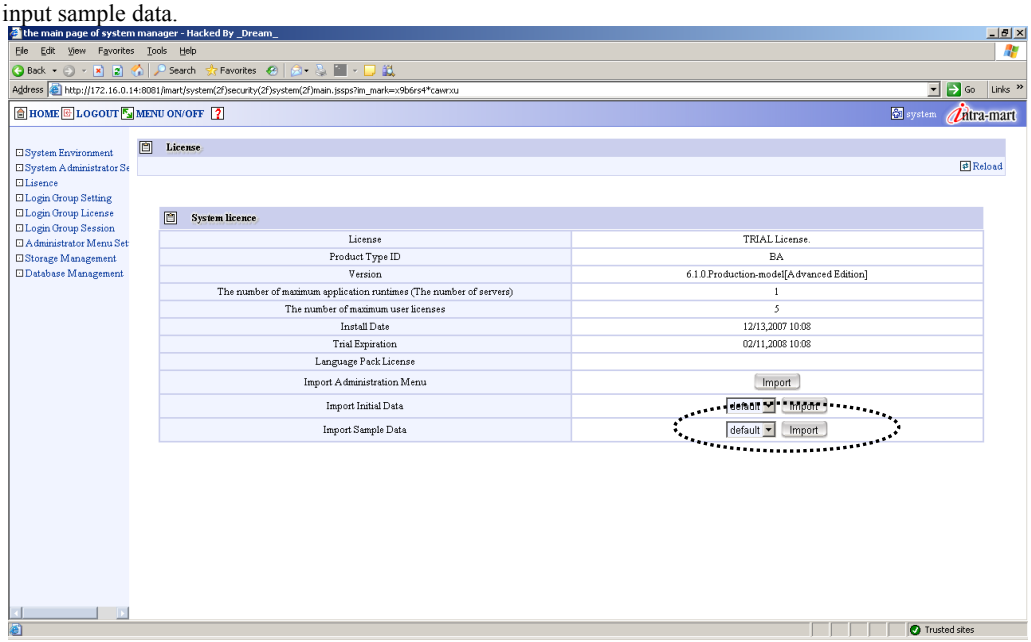
7.3 Importing Sample Data

* Sample data is installed only if you need it.

Demo data such as Login User, Role, Organization and Workflow are included in the sample.

(1) Login to intra-mart as System Administrator

(2) From the Menu, go to [License] page, select Login Group to be imported and click on [Import] button to input sample data.



(3) From now on, Sample Application can be operated.

* Please refer to Chapter 3 of "Programming Guide Script Development Model" as well as Chapter 3 of "Programming Guide JavaEE Development Model" for details on Sample application. (Both of them are separated volumes).

8 Data migration from Ver6.0 to Ver6.1

Basic configuration of intra-mart ver6.1(**IMv6.1**) is so different from other inter-mart products (ver1.x,ver2.x,ver3.x,ver4.x,ver5.x,ver6.0a and intra-mart application which runs on each intra-mart) that it is impossible to maintain each IMv6.1 and other.

Customers who use intra-mart ver6.0 (**IMv6.0)** can migrate the system information to **IMv6.1** by this chapter's data migration procedures.

(Important) Before you migrate data, confirm whether the latest patch file of IMv6.0 is installed.
If not, it is impossible to make data migration properly.

In this chapter, data migration of system data, portal data, ViewCreater data and workflow data from **IMv6.0 to IMv6.1** is explained.
(Programs and data which you create should be individually migrated.)

8.1 Notes for Data Migration

In order to install **IMv6.1**, be sure to obey the following conditions.
If you can not satisfy all the conditions, the operation causes errors, and re-install is needed.
It is possible that inconsistency or lost will be occur in data in the database.
Pay attention to this point.

(1) Before the migration, back up the database data and confirm that you can restore the system if some disorders happen.

(2) If you use the same machine, install with paying attention to the following point.
- **Do not install IMv6.1 in the directory which is used by other intra-mart product.**
  → Install it in a new directory.

(3) **IMv6.1** must be in the situation only that its license is registered.
- **Be sure to make initial startup according to the migration steps.**
  If you start a server after the installation, you can not migrate data properly.
  → In this case, you have to re-install.

(4) License registration of IMv6.1 should be as strict as IMv6.0 or not as strict as IMv6.0.
Please refer to "3.2.4 About License Registration" about the way to register the license.

(5) If you migrate workflow data, all the processes should be terminated. (If data under application is migrated, data inconsistency would happen)

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(6) If you use character code **"UNICODE"** as Microsoft SQL Server, change column type **[VARCHAR]** of following SQL file to **[NVARCHAR]**.

- <% Storage Service root %>/system/basic/logCreateTable.sql
- <% Storage Service root %>/system/basic/tmCreateTable.sql
- <% Storage Service root %>/migration/v60_to_v61_migration_system.sql
- <% Storage Service root %>/migration/v60_to_v61_migration_bpw.sql
- <% Storage Service root %>/migration/v60_to_v61_migration_view_creator.sql

8.2 Outline of Migration Procedure

Data migration procedures are as follows.

(1) Back up database data

(2) Export account data from **IMv6.0**

(3) Install **IMv6.1**

(4) License registration **of IMv6.1**

(5) Migration of setting files(1)

i) Copy data migration module

ii) Copy data migration file

iii) Migrate StorageService contents related to portal.

(6) Configure database connection

(7) Start up **IMv6.1**

(8) Create login group

(9) Migration of setting files (2)

i) Migrate StorageService contents related to workflow

(10) Import initial data via data migration module

(11) Import account data

8.3 Backup of DB data

Before the migration, back up the database data and confirm that you can restore the system if some disorders happen. About the backup of database data, please follow the backup procedures of each database products (Refer the manuals attached to your database).

8.4 Exporting Account Data from IMv6.0

(Note) This procedure is taken for each registered login group.

(1) Log in **IMv6.0** as Login Group Administrator.
(2) Select in the menu [Login group administration] - [Access Security Information Input and Output] - [Export].
(3) Check [Account] in the right frame, specify the file name to be output in [File] and click on [Export] button.
(4) Check if data is output to specified file.

* If there are several login groups, please pay attention to that each login name of output file does not overlap.
* You do not have to export role, menu, calendar and batch information.
* Please refer to following file about the data format.
<% IMv6.0 ServerManager Root Directory %>/specification/dtd/account_6_0.dtd

8.5 IMv6.1 Installation

Install **IMv6.1** according to install guide.
(At this point, do not start intra-mart.)

8.6 IMv6.1 License Registration

Resister the license of **IMv6.1**.
License registration of **IMv6.1** needs to be as strict as IMv6.0 or not as strict as **IMv6.0.**
Please refer to "**3.2.4 About License Registration**" about the way to register the license.

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8.7 Migration of Configuration Files (1)

8.7.1 Copying Data Migration Module

Copy "**iwp_afw/migration/v60_to_v61/licenses/im_migration_v60_to_v61.iar"** included in CD-ROM of this product to **<% IMv6.1 ServerManager Root Directory %>/licenses** Directory.

8.7.2 Copying Data Migration Files

"**iwp_afw/migration/v60_to_v61/storage/migration/"**Directory of CD-ROM of this product includes data migration file (.xml and .sql file).

Copy these files to **<% IMv6.1 StorageServiceRoot Directory %>/storage/migration/** Directory.

- **(6) If you use character code "UNICODE" as Microsoft SQL Server, change column type [VARCHAR] of copied SQL files to [NVARCHAR].**

8.7.3 Migration of StorageService Contents Regarding to Portal

Copy "**<% IMv6.0 StorageService Root Directory %>/portal/portals/"** Directory to IMv6.1 without changing directory structure.

8.8 Database Connection Settings

Set up database of **IMv6.1.** (Set up as operating **IMv6.0**)

Please refer to "3.6 Database Connection Settings" about database connection settings.

8.9 Startup IMv6.1

Start up **IMv6.1**.

Please refer to "4 Startup and Shutdown" about the startup of **IMv6.1**.

8.10 Creating Login Group

Create a login group about **IMv6.1** Create a login group same as the ones when operating **IMv6.0**.

Please refer to "5.2 Creating Login Group" about the creation of login group.

8.11 Migration of Configuration File (2)

8.11.1 Migration of StorageService contents regarding to workflow

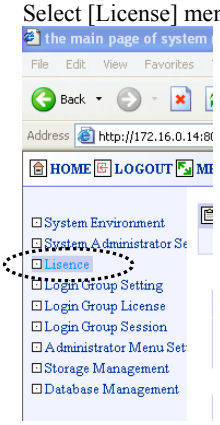
Copy following directories into **IMv6.1** without changing directory structure.

- **"<% IMv6.0 StorageServiceRoot Directory %>/bpw/attach/"**Directory
- **"<% IMv6.0 StorageServiceRoot Directory %>/bpw/code_manager/"**Directory

8.12 Importing initialization data by data migration module

(1) Log in as System Administrator

(2) Select [License] menu.



Following screen is displayed.

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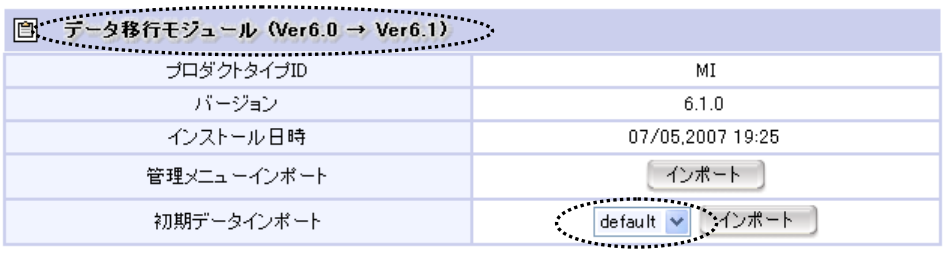
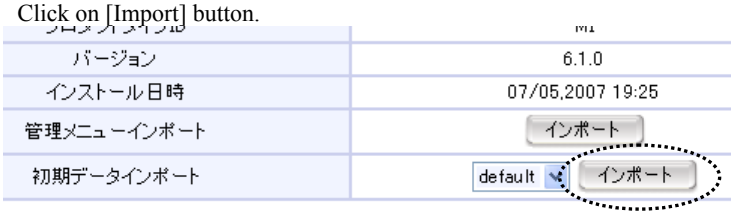
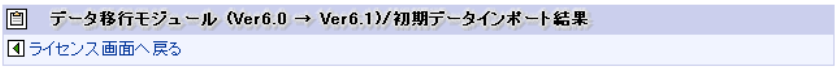
(3) Select login group to be imported in the combo box of **[Initial Data Import]** in **"Data Migration Module (Ver6.0 → Ver6.1)"** and select "default".



(4) Click on [Import] button.



If the screen below is shown, initial data import by data migration module is completed.



項目	結果
テーブル作成(データベース)	テーブル作成に成功しました。 system/basic/logCreateTable.sql system/basic/tmCreateTable.sql migration/v60_to_v61_maigration_system.sql migration/v60_to_v61_maigration_bpw.sql migration/v60_to_v61_maigration_view_creator.sql
ロール	インポートしませんでした。
アカウント	インポートしませんでした。
メニュー	インポートが成功しました。 migration/v60_to_v61_menu.xml migration/v60_to_v61_menu-bpw.xml
カレンダー	インポートしませんでした。
バッチ	インポートが成功しました。 system/basic/init-batch-master.xml migration/v60_to_v61_batch-bpw.xml
アクセスコントローラ	インポートが成功しました。 system/basic/init-access-controller.xml
レコード作成(データベース)	インポートしませんでした。
拡張インポート(プログラム)	インポートが成功しました。 system/init/distribute_batch_config.js

8.13 Importing Account Data

(Notes) This procedure is taken by each registered login group.

(1) Log in **IMv6.1** as Login Group Administrator.
(2) Select in the menu [Login group administration] - [Access Security Information Input and Output] - [Import].
(3) Check [Account] in the right frame, specify the file name, which is created in "8.4 Exporting account data from IMv6.0", as [File] and click on [Import] button.
(Select "standard" as "category" combo box")
(4) Confirmwhether account data is properly reflected.

(Note 1) A lot of system resources are consumed in order to import large amount of data such as account information.
It is recommended to divide the importing amount into about 5000 for one time. (It takes a few minutes or half an hour to process importing)
In case of importing 5000 users, each of Application Runtime and Permanent Data Service needs 64MB as –Xms (startup memory of JAVA) and 128MB as –Xmx.

*Startup memory of each service (Java process) can be configured by using administration tool (intra-martAdministrator). If changing the startup memory, restart each service.

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9 Reconstructing intra-mart environment

9.1 Changing JDK

Change JDK path described in following files.

9.1.1 Windows Environment

Directory	File (number of lines)
<%im_path%>/bin	admin.bat(1)
	manager.bat(1)
	server.bat(2)
	srvcom.bat(1)
	zippack.bat(1)
<%im_path%>/bin/tools	licedit.bat(1)
	js2class.bat(1)
<%im_path%>/conf	imart.xml(337, 362)

9.1.2 UNIX OS Environment

Directory	File (number of lines)
<%im_path%>/bin	admin.sh(16)
	manager.sh(16)
	server.sh(16)
	srvcom.sh(16)
	zippack.sh(16)
<%im_path%>/bin/tools	licedit.sh(1)
<%im_path%>/conf	imart.xml(337, 362)

9.1.3 Sample

9.1.3.1 Sample of imart.xml modification

- Before modification

```
<intra-mart>
  <platform>
      .
      .
    <java>
      <home>C:/jdk1.5.0_08</home>
      <server>
          .
          .
        <command>
          <exefile>C:/jdk1.5.0_08/bin/java</exefile>
          <option>-cp %SYSTEMCLASSPATH% -Xms%XMS% -Xmx%XMX% -Djava.awt.headless=true</option>
          <argument/>
        </command>
      </server>
          .
          .
    </java>
     .
     .
```

- After modification

```
<intra-mart>
  <platform>
      .
      .
    <java>
      <home>C:/jdk1.5.0_12</home>
      <server>
          .
          .
        <command>
          <exefile>C:/jdk1.5.0_12/bin/java</exefile>
          <option>-cp %SYSTEMCLASSPATH% -Xms%XMS% -Xmx%XMX% -Djava.awt.headless=true</option>
          <argument/>
        </command>
      </server>
          .
          .
    </java>
     .
     .
```


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9.1.3.2 Sample of .bat file modification

- Before

```
"C:/jdk1.5.0_08¥bin¥java" -cp C:/imart¥bin¥imart.jar -Xms16m -Xmx128m jp.co.intra_mart.bin.server.
ServerController %1 %2 %3 %4 %5 %6 %7 %8 %9
```

- After

```
"C:/jdk1.5.0_12¥bin¥java" -cp C:/imart¥bin¥imart.jar -Xms16m -Xmx128m jp.co.intra_mart.bin.server.
ServerController %1 %2 %3 %4 %5 %6 %7 %8 %9
```

9.1.3.3 Sample of .sh file modification

- Before

```
## Please set the installation path of JDK.
JAVA_HOME=C:/jdk1.5.0_08
export JAVA_HOME
```

- After

```
## Please set the installation path of JDK.
JAVA_HOME=C:/jdk1.5.0_12
export JAVA_HOME
```

9.2 Changing IP Address

Change addresses described in "**<%im_path%>/conf/imart.xml**" and "**<%im_path%>/conf/http.xml".**

Please refer to "Setting Guide (service)" and "Setting Guide (HTTP)" for details.

File	Line number	Tag name
imart.xml	3	intra-mart/administration/host/address
	9	intra-mart/platform/host/id intra-mart/platform/host/address
	282	intra-mart/platform/service/scheduler/connection-url
http.xml	75	resin/server/http/server-id
	96	resin/server/cluster/srun/server-id resin/server/cluster/srun/host

* Only if you use IWP (resin), http.xml can be changed.

* It is recommended to change "intra-mart/platform/host/id" of imart.xml, "resin/server/http/server-id" and "resin/server/cluster/srun/server-id" of http.xml although it is not indispensable.

9.3 Changing Port Number

Change port numbers in "**<%im_path%>/conf/imart.xml**" and "**<%im_path%>/conf/http.xml**".

Please refer to "Setting Guide (service)" and "Setting Guide (HTTP)" for details.

File	Line number	Tag name
imart.xml	4	intra-mart/administration/network/port
	9	intra-mart/platform/host/id
	10	intra-mart/platform/network/port
	282	intra-mart/platform/service/scheduler/connection-url
http.xml	75	resin/server/http/server-id resin/server/http/port
	96	resin/server/cluster/srun/server-id resin/server/cluster/srun/port

*Only if you use IWP (resin), http.xml you need to change.

*Although it is not indispensible, it is recommended to change "intra-mart/platform/host/id" of imart.xml, "resin/server/http/server-id" and "resin/server/cluster/srun/server-id" of http.xml.

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10 Installation of Extensions and Applications

This chapter is based on the assumption that IWP (JBoss) and AFW are used.

10.1 Installation of Extensions and Applications

Please install extensions and applications to a directory where IWP (JBoss) and AFW are installed.

10.2 Recreation and Re-registration of imart.war

In this chapter, root directory of **AppRuntime** is expressed as ***<%AppRuntime_path%>*** **.**

imart.war includes the contents of ***<%AppRuntime_path%>*****/doc/imart**.

If extensions or applications were installed, imart.war must be recreated or re-registered.

Please follow the procedure below.

(1) Execute **zippack.bat** (windows) or **zippack.sh** (UNIX OS) under <% AFW installation path %>¥bin.
All the files under ***<% AFW installation path %>***¥doc will be stored in imart.war.

(2) After creating imart.war, deploy WAR file again.
Please refer to the table below about the way to deploy WAR file.

Reference		Page
3.4	intra-mart WebPlatform (JBoss) Settings	88
3.5.1	WebSphere Settings	92
3.5.2	WebLogic Settings	112

11 Uninstallation

11.1 When Operating on Command Prompt

If it is still running, stop it by using [Ctrl＋C] key.

- **In case of IWP (Resin)**

  Delete Web Server Connector's registered information from the Web server.

  Delete the installed directories **<%web_path%> and <%im_path%>**.

- **In case of IWP (JBoss)**

  Delete JBoss.

  Delete the installed directory **<%im_path%>.**

- **In case of AFW**

  Delete registered information about AppFramework of Application Server

  Delete the installed directory **<%im_path%>**.

11.2 When Operating as Service

If it is still running, stop it using intra-mart ServiceManager.

Delete each server from the service of intra-mart ServiceManage.

- **In case of IWP (Resin)**

  Delete Web Server Connector's registered information from the Web server.

  Delete the installed directories **<%web_path%> and <%im_path%>**.

- **In case of IWP (JBoss)**

  Delete JBoss.

  Delete the installed directory **<%im_path%>.**

- **In case of AFW**

  Delete registered information about AppFramework of Application Server

  Delete the installed directory **<%im_path%>**.

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11.3 Windows Environment

Delete the intra-mart's start menu, which is registered in the Windows' start menu.

Please delete the following directories.

C:¥Documents and Settings¥<%User ID at the time of installation%>¥Start Menu¥Program¥¥intra-mart WebPlatform Ver6.1

* The above-mentioned description refers to the directory when IWP is installed with default values.
* The location of the directory will differ if 1) AFW is installed, or when the registered name of the start menu is changed at the time of IWP or AFW installation.

12 Appendix A intra-mart System Administration Sheet

intra-mart System Administration Sheet

* Draw a circle around the appropriate fields.

Web Server (IWP only)	Web Server	Apache , IIS
	Version	
	Host Name (FQDN)	
Application Server	Application Server	Resin , JBoss , WebSphere , WebLogic
	Version	
	Host Name (FQDN)	
Java VM(JDK)	Version	
Database	Class	ORACLE, MS-SQLServer, IBM DB2, PostgreSQL
	Database Version	
	Network Database Name	
	Maximum Number of Connectors	
	Topology	Native (JDBC THIN Connection)
	Above-mentioned Connection Driver Version	
SMTP Server	Host Name (FQDN)	
intra-mart	System Administrator ID/Password	system / *******
	Login Group ID	
	Login Group Administrator User ID/Password	
	intra-mart Application Name	
	intra-mart Version	
WWW Server Machine Specifications	CPU Class and Number	
	Memory	
	Hard Disk	
intra-mart Server Machine Specifications (If it is the same machine with WWW server, do not need to enter)	CPU Class and Number	
	Memory	
	Hard Disk	
DB Server Machine Specifications (If it is the same machine with WWW server, do not need to enter)	CPU Class and Number	
	Memory	
	Hard Disk	
Client PC	Model (roughly)	
	Installed Browser	Netscape Navigator, Internet Explorer
	Installed Browser's Version	

* As for the version, please record down the detailed revision number.
* Please memorize the password without writing it down on this sheet. If it is written down, make sure to keep this sheet under strict control.
* Please describe the server structure diagram to be used.
* Please key in the location where WebServerConnecter (IWP (Resin) only) and each intra-mart server module (such as Application Runtime) are installed.
* If possible, please write the IP address of each server and communication port number used by each server module.

System Structure

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13 Appendix B Installation Trouble Shooting

Installation trouble shooting is described in "**intra-mart WebPlatform/AppFramework ver6.1 Error Guide"**. Please refer to it together with following notes.

13.1 Notes

If the operation of the screen is unstable, clear the cash of the browser make it compare the document in the server every time, and restart the browser.
In the other case, if login screen is not displayed properly after installation, installation and adequate configuration are not completed. Please make followings sure.

- Startup information is output to % [Application Runtime] path % /log/platform/system.logfile.→Is there error message related to the fundamental problems?
- Does the directory in which intra-mart is installed overlap on the directly in which other [each service] is installed?
- If it takes much time to start up [Application Runtime],
  →Please check the startup condition of server by IM-Administrator tool.
- Are [Service Manager] and [each Service] installed and started up?
- Have IP address and port number (of Listen Port) been already used by the other company's products or something?
- Are there any mistakes about IP address and port number of each settings ?

If you cannot solve the problems even with checking above all, it may be due to inadequate installation or configuration. This version is a so sensitive product that you might solve the problems with re-installation more quickly. Please pay attention to this point.

14 Appendix C Tips on Startup and Operation (to ensure operational stability)

14.1 After Operation Startup

- Make sure to setup the checking period of operation status after starting any operations.
  This period is required because the “access pattern”, “usage status and “operation status (environment) can only be assessed after starting actual operations.
  - Examples of information obtained
    - Access traffic (average, peak time, etc.), CPU usage, and throughput [*1]
    - Process Statistics (Which processes are executed, how often they are executed, etc.)[*2]
    - JavaVM memory usage (time-series JavaVM internal memory utilization, FullGC incidence rate, etc.) [*3]

- Reconfigure or restructure the environment based on the information obtained from the operation status checking period.
  Based on the obtained information, configure the environment and programs such as “OS” and “JavaVM”.
  - Example of Environment Configuration
    - Consider adding on hardware depending on CPU operating rate or throughput.
    - Consider changing the programs in order to increase the efficiency of frequently-used processes.
    - If the memory utilization rate or FullGC incidence rate (recurrence interval) is high, consider minimizing memory utilization by changing the programs, or reducing FullGC incidence rate by configuring the JavaVM parameter setting (-Xms, -Xmx, etc.) [*4]. Also, consider adding more memory if the memory capacity is insufficient.

14.2 Operation

- Make sure to set up the checking period of operation status regularly.
  This period is required to check the “access pattern”, “usage status”, and “operation status (environment)” regularly.
  - Examples of information obtained
    - Same as above “After Operation Startup”.

- Reconfigure or restructure the environment based on the information obtained from regular operation status checking period.
  Based on the obtained information, configure the environment and programs such as “OS” and “JavaVM”.
  - Example of Environment Configuration
    - Same as above “After Operation Startup”.

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14.3 Remarks

*1 Access traffic data (mean, peak time, etc.) is obtained by using access log. CPU utilization rate is obtained by using top command or performance monitor. Throughput is measured by the actual accesses.

*2 Gather process statistics data by using access log and program log.

*3 Gather JavaVM memory usage (time-series JavaVM internal memory utilization) data by using the memory log of intra-mart Administrator. FullGV incidence rate is obtained by using memory log of intra-mart Administrator (where usable memory is drastically increasing) or by JavaVM parameter-verbose:gc, etc.

*4 In the case of FullGC, all the processes other than GC processing will stop at regular time intervals (from a few seconds to 20 – 30 minutes at a time), reducing the incidence of FullGC to at most once a day.
In order to minimize the effect of FullGC during operation, limit the occurrence of FullGC in the nighttime.
(Consider reactivating FullGC during the nighttime.)

Please refer to Sun Java web site "**http://java.sun.com"** for more details on JavaVM parameters.

15 Appendix D Creating Tablespace and Users in Oracle10g

Use of database is a precondition for intra-mart. To use Oracle as DBMS on intra-mart, it is necessary to assign rights to the dedicated intra-mart Users at least.

The following diagrams show how to create tablespace and users as well as to assign rights in Oracle10g.

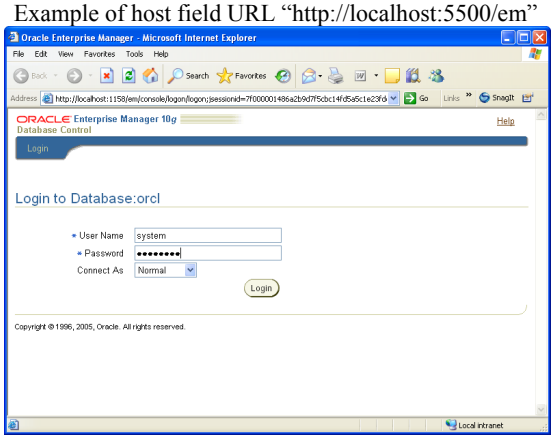
* The following procedure is for temporary use during system trial and development. For normal office use, please set the tablespace after estimating the DB capacity of the database of other tablespaces, etc.

15.1 Creating Tablespace

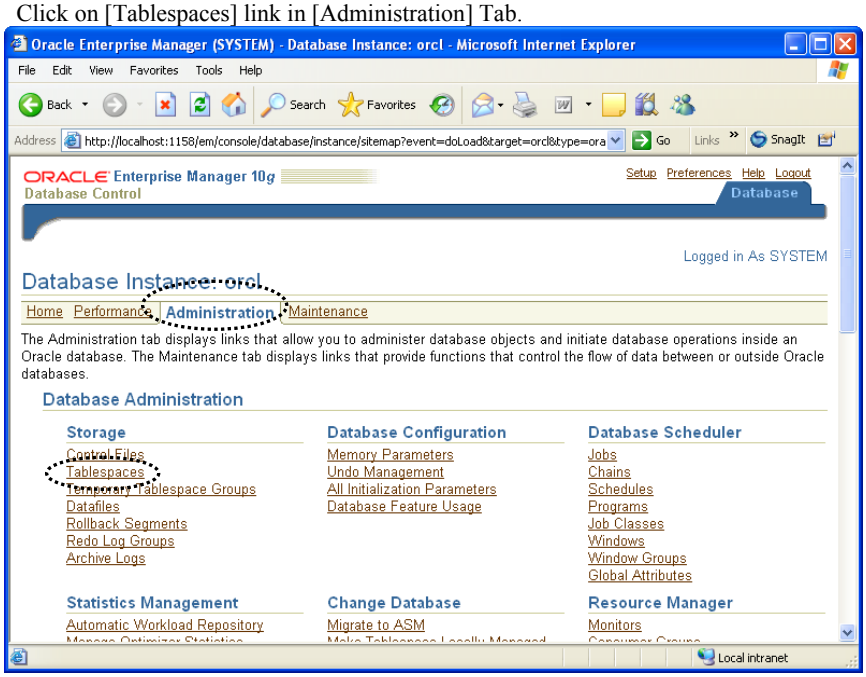
Create tablespace to store the data created by individual users.

(1) Display Login Page of ORACLE 10g Enterprise Manager and connect to the database using Administrative Rights.

Example of host field URL “http://localhost:5500/em”



(2) Click on [Tablespaces] link in [Administration] Tab.



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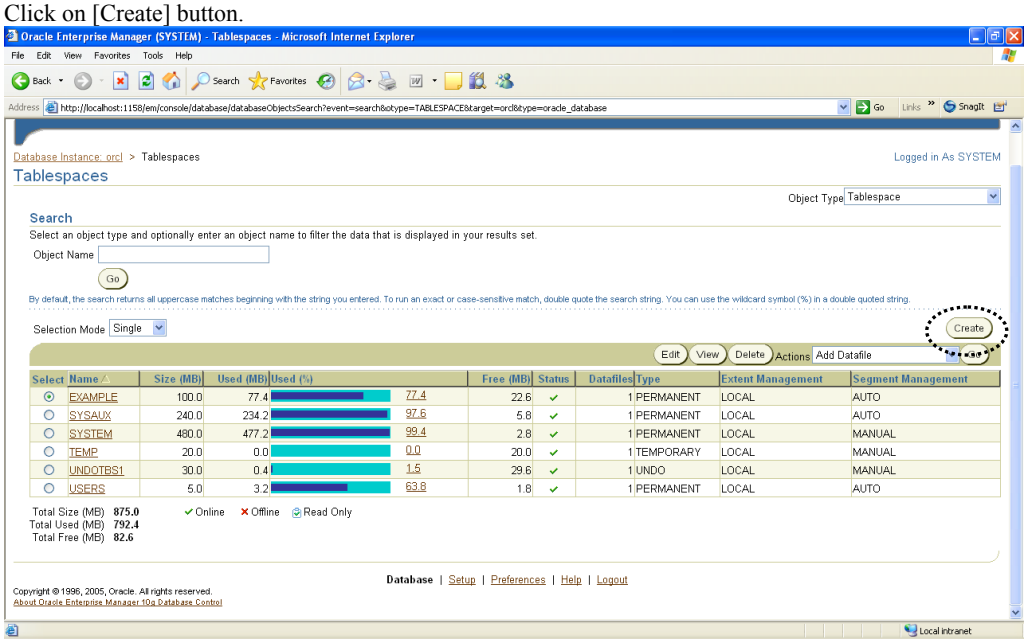
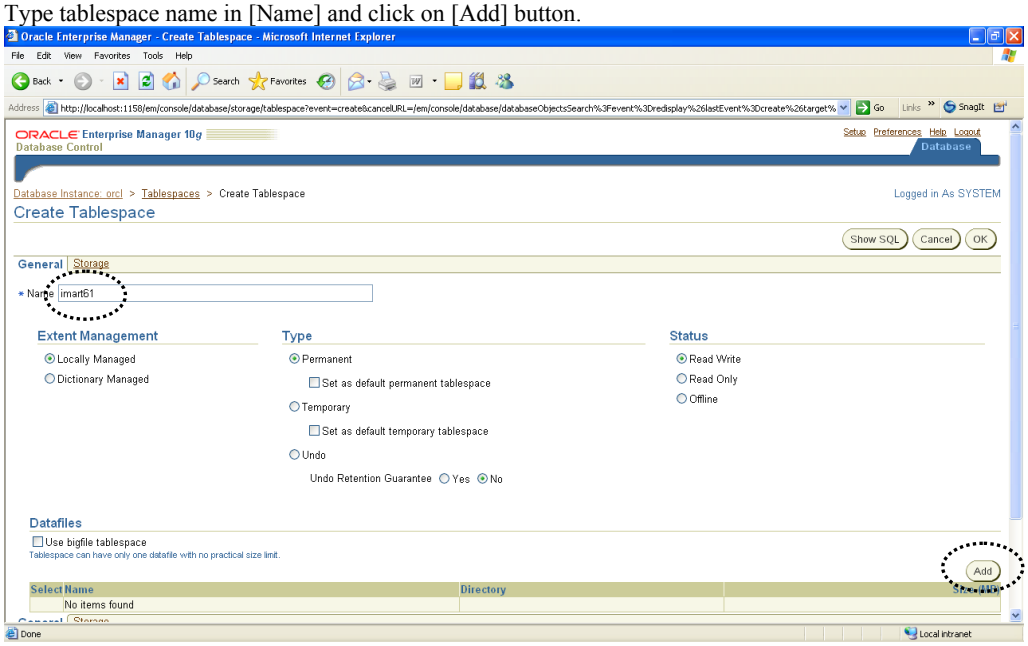
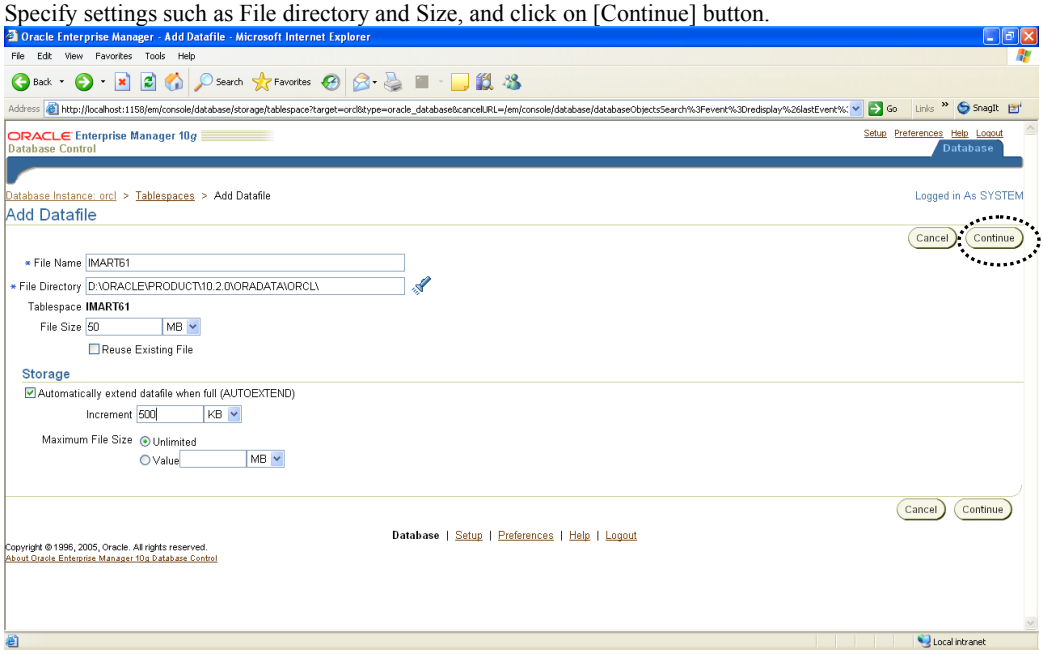
(3) Click on [Create] button.



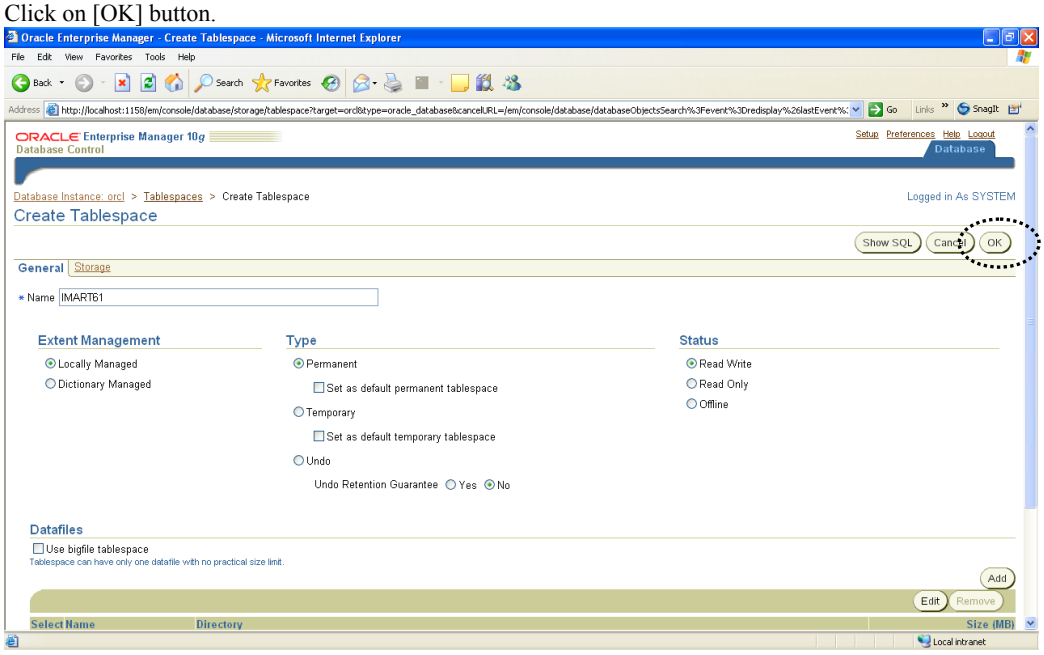
(4) Type tablespace name in [Name] and click on [Add] button.



(5) Specify settings such as File directory and Size, and click on [Continue] button.



(6) Click on [OK] button.



It is successful if the message, “Object has been created in good order,” is displayed.

Please refer to the topic, “Creating, Editing and Deleting Tablespace”, available in Oracle Enterprise Manager Online Help.

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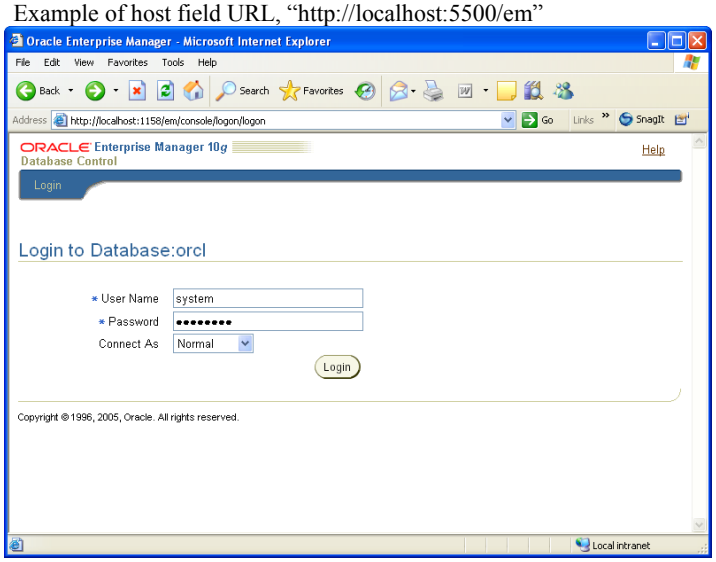
15.2 Creating Users

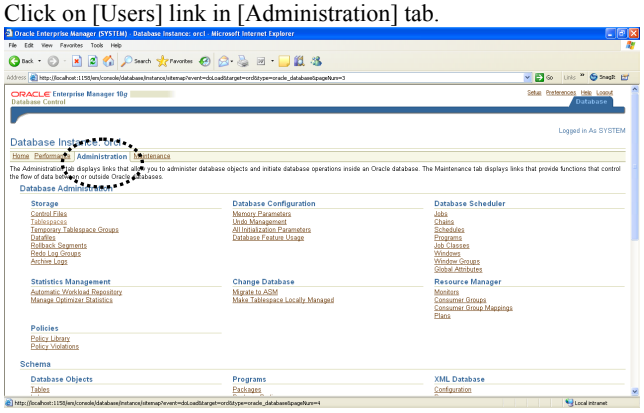
Create Oracle User to be used by intra-mart

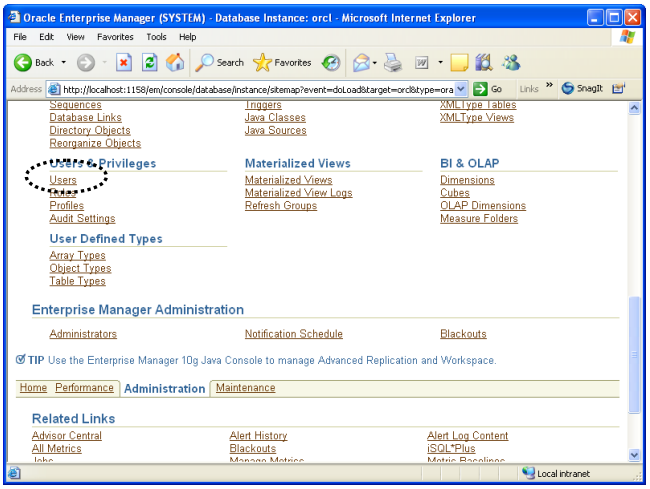
(1) Display the Login Page of ORACLE 10g Enterprise Manager and connect to the database with Administrative Rights.

Example of host field URL, “http://localhost:5500/em”

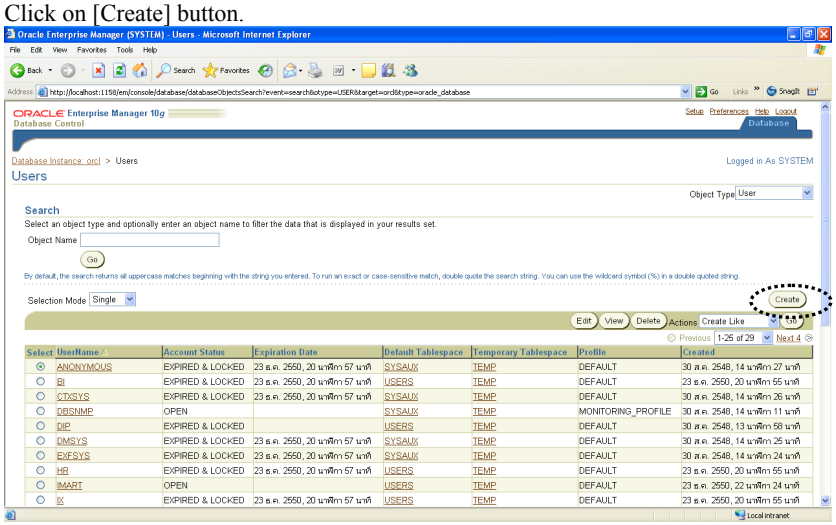


(2) Click on [Users] link in [Administration] tab.

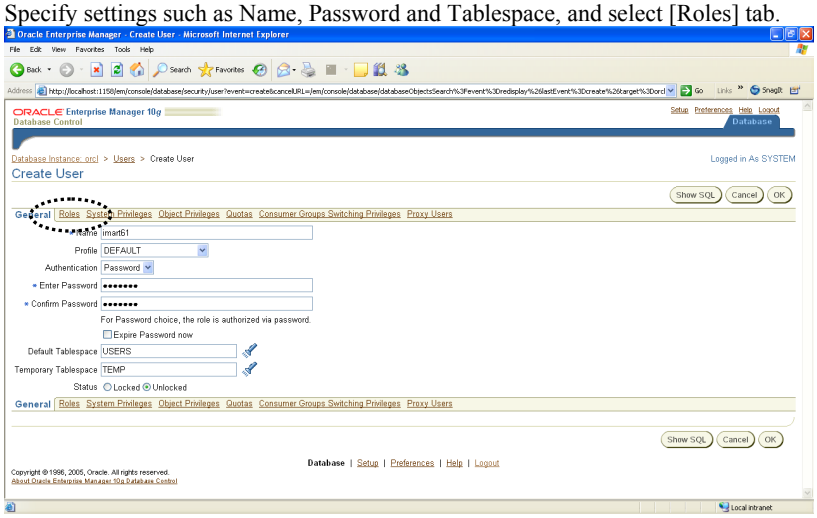




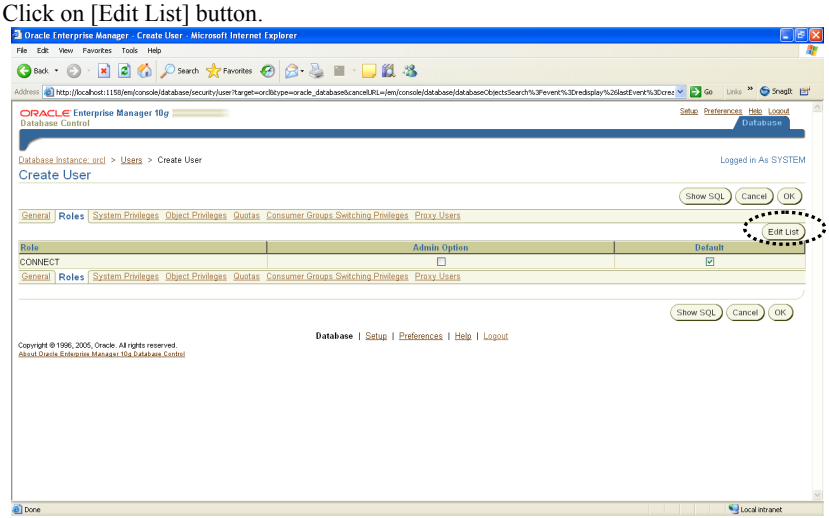
(3) Click on [Create] button.



(4) Specify settings such as Name, Password and Tablespace, and select [Roles] tab.



(5) Click on [Edit List] button.



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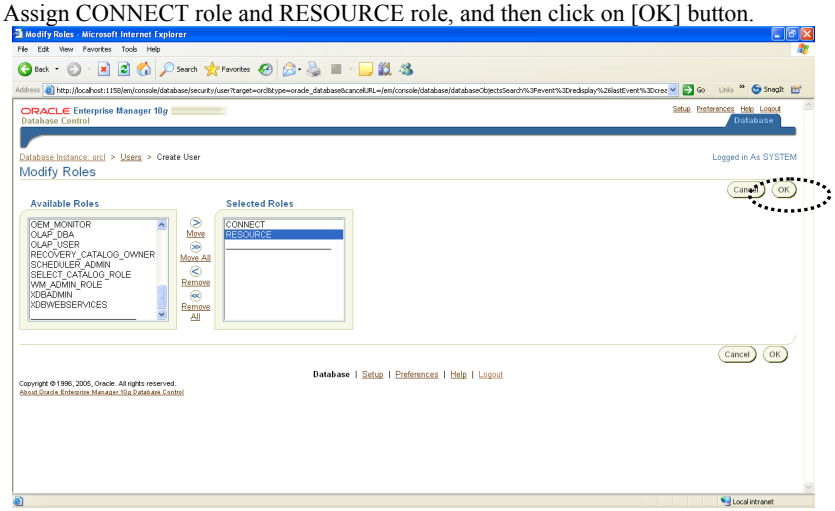
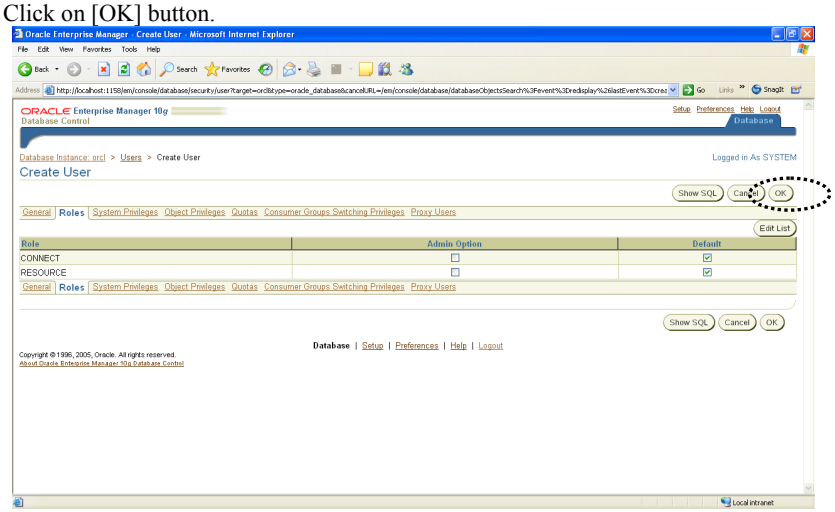
(6) Assign CONNECT role and RESOURCE role, and then click on [OK] button.



(7) Click on [OK] button.



It is successful if the message, “Object has been created in good order,” is displayed.

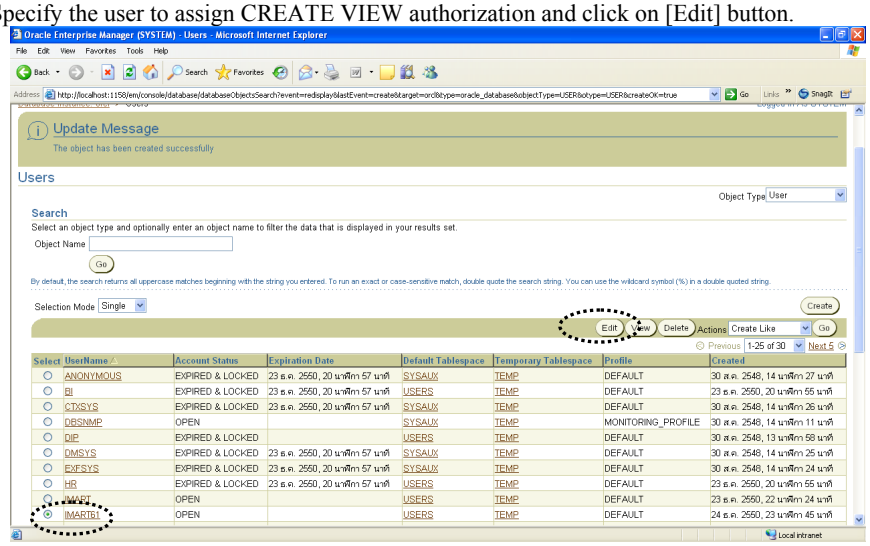
Please refer to the topic, “Creating, Editing and Deleting Database User”, available in Oracle Enterprise Manager Online Help.

15.2.1 Oracle Database 10g Release2 Environment

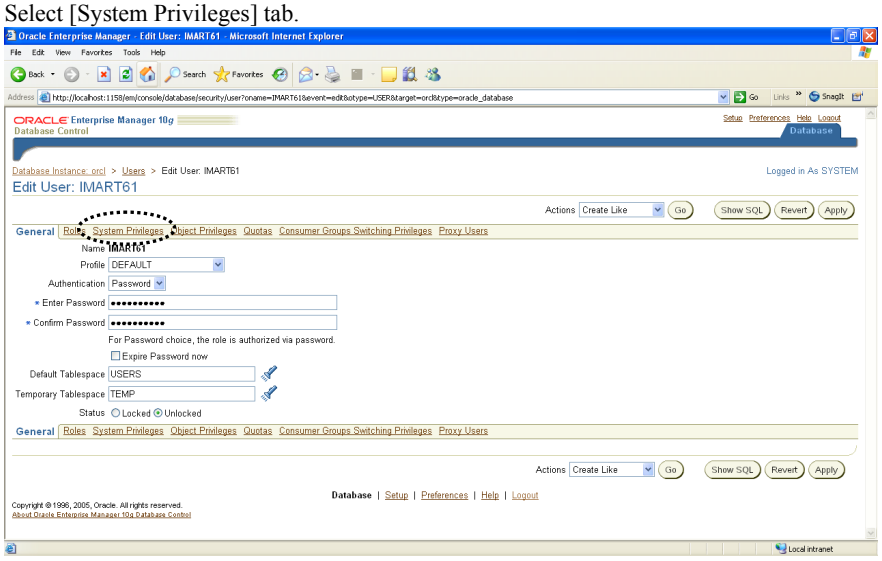
CREATIVE VIEW authorization is necessary to use intra-mart.

In case of Oracle Database 10g Release 2 environment, CONNECT role is assigned to only CREATE SESSION authorization but not other related authorizations. It is necessary to assign CREATE VIEW Authorization apparently.

(1) Specify the user to assign CREATE VIEW authorization and click on [Edit] button.



(2) Select [System Privileges] tab.



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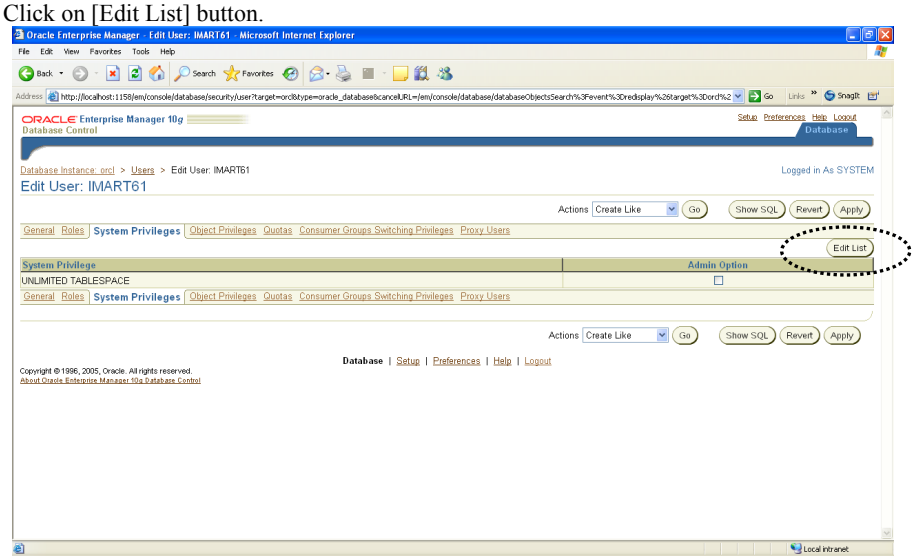
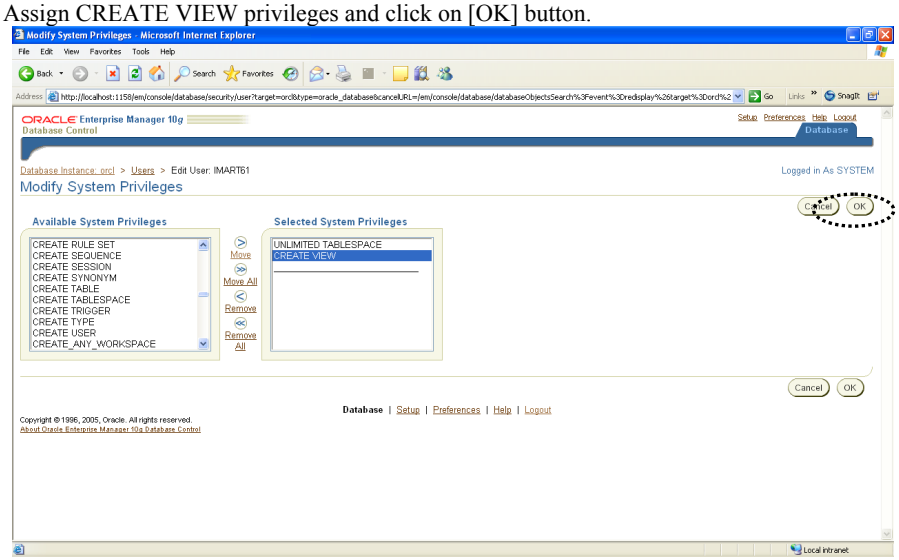
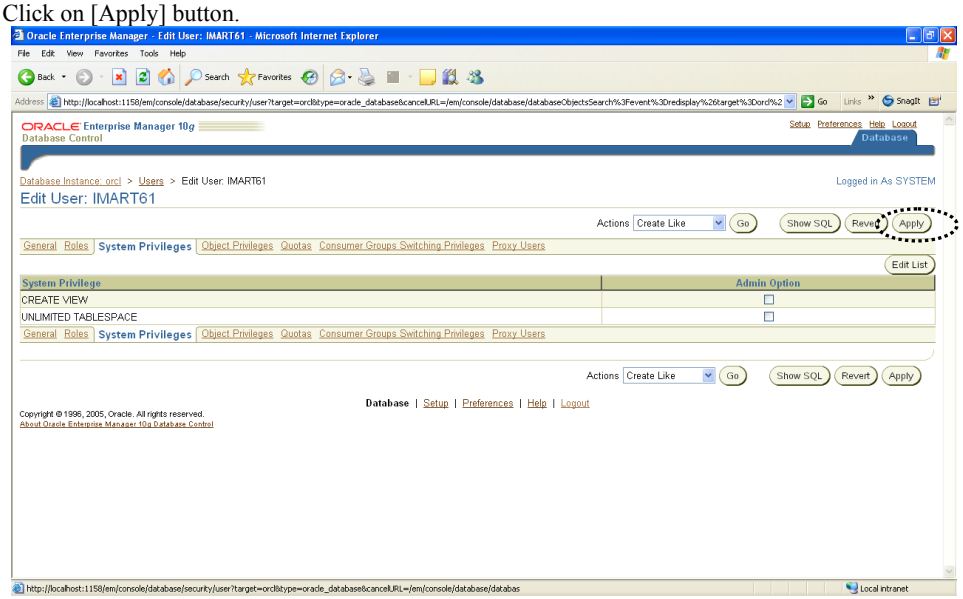
(3) Click on [Edit List] button.



(4) Assign CREATE VIEW privileges and click on [OK] button.



(5) Click on [Apply] button.



If “User XXXX is properly changed” is shown, the procedures are completed successfully.

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