

Oracle Discoverer™ 3i Viewer Edition

Installation and Administration Guide

Part No. Z26688-02

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Oracle Discoverer 3i Viewer Edition Installation and Administration Guide

Part No. Z26688-02

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Preface

Welcome to Oracle Discoverer 3i Viewer Edition. This guide to Oracle Discoverer 3i Viewer Edition Installation and Administration explains how to install and configure Oracle Discoverer 3i Viewer Edition for business use via the web.

To use Oracle Discoverer 3i Viewer Edition and this guide effectively, you should be familiar with http servers and database concepts.

Intended Audience

This guide is intended for the person who is installing the Oracle Discoverer 3i Viewer Edition . Most likely this will be a departmental user.

Conventions

Discoverer refers to Oracle Discoverer 3i Viewer Edition

EUL, the End User Layer™, refers to the metadata interface between the database and Discover.

Convention	Meaning
.	Vertical ellipses in examples indicate omitted information not necessary for the example. Horizontal ellipses in statements or commands indicate omitted material not necessary for the statement or command.
boldface text	Boldface type in text indicates a command name, menu name, file name, keyboard keys, or other choice or selection.
<i>italic text</i>	Italic type indicates a term defined in the text, the glossary, or in both locations. It can also represent a variable, and be used to provide emphasis.
< >	Angle brackets enclose user-supplied names.
[]	Brackets enclose optional clauses from which you can choose one or none.
Menu name Command	Text in this format conveys a sequence of choices, <i>i.e.</i> , choose the menu, then the command under that menu.
Courier text	Text in this format indicates a command line to be typed.

Overview of Oracle Discoverer 3i Viewer Edition

1.1 Introduction

Oracle Discoverer 3i Viewer Edition is a business intelligence tool for viewing workbooks created by users of the Windows or Web releases of the User Edition. Using Oracle Discoverer's easy to use interface via a web browser, users can access and analyze database data.

Oracle Discoverer 3i Viewer Edition can be rapidly deployed by using existing Discoverer installations and is straightforward to set up and maintain. Oracle Discoverer 3i Viewer Edition can be used to integrate database output into your web site and portal and is easily customized to fit in with your web site look and feel, or to build custom Discoverer applications for the web. Oracle Discoverer 3i Viewer Edition scales up easily to support more users as demand on the system increases. It is also optimized for performance and designed to minimize network traffic.

This chapter provides an overview of the Oracle Discoverer 3i Viewer Edition architecture, describes the components and illustrates how Oracle Discoverer 3i Viewer Edition works to give data access to users.

1.2 Oracle Discoverer 3i Viewer Edition in context

Oracle Discoverer 3i Viewer can be used to view workbooks created by the Discoverer User Edition on windows or the Discoverer User Edition on the web. The deployment of Oracle Discoverer 3i Viewer Edition is best understood by looking at its context (See Figure 1–1).

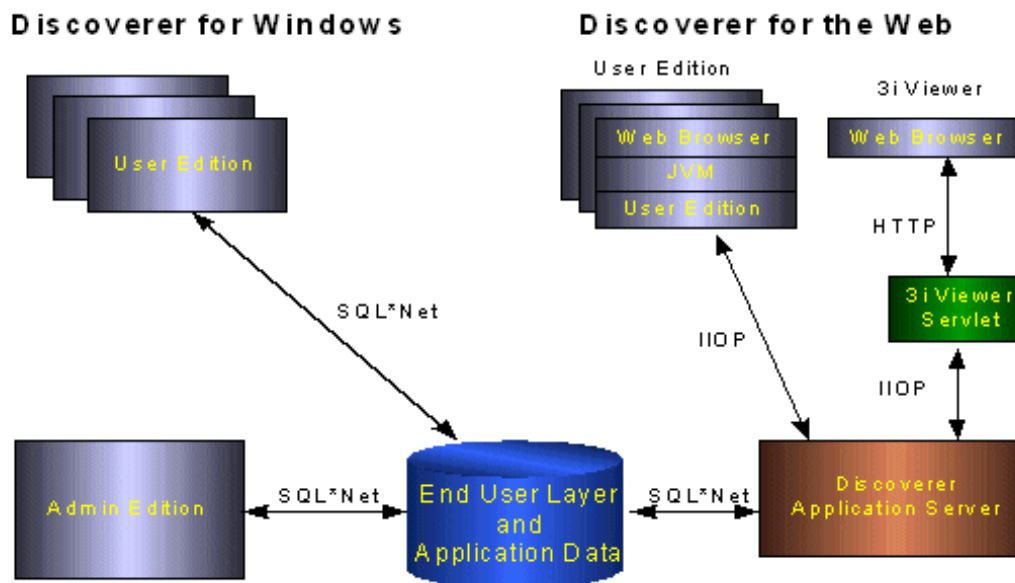


Figure 1–1 Oracle Discoverer 3i Viewer Edition components in context

Oracle Discoverer 3i Viewer Edition is deployed using an internet computing architecture that sits on top of the existing Oracle Discoverer Application Server.

Oracle Discoverer Application Server works with an HTTP server to provide a robust, scalable deployment platform for the Oracle Discoverer 3i Viewer Edition.

1.3 The n- tiered architecture of Oracle Discoverer 3i Viewer Edition

The n-tiers of Discoverer are as follows:

- Client
- HTTP Server
- Discoverer Application Server
- Database

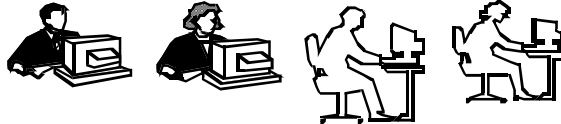
This architecture takes advantage of the distributed nature of the Web environment. While it is possible to install all tiers of Discoverer on the same machine, we recommend distributing your installation over multiple machines to maximize performance.

Important: The Discoverer End User Layer must be in the database before you can configure the client access rights and privileges. To do this, you must first install the Discoverer Administrator Edition (v3.1.36 or later).

The following figure illustrates the tiered architecture.

First Tier: The Clients

Use any computer with a Web Browser



Second Tier: The Web Server

WebServer(s)

Contains the:

1. Discoverer 3i Viewer Servlet

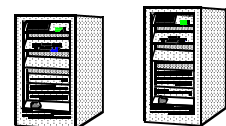


Third Tier: The Discoverer Application Server(s)

Application Server(s)

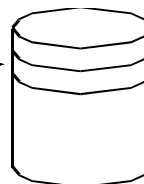
Contain the:

1. Discoverer Application server
2. Preferences server
3. Locator



Fourth Tier: The Database

End User Layer (EUL)



← Oracle Discoverer 3.1
and 3i workbooks

← Database

1.3.1 First tier - the Client

The first tier is the client—a user’s computer. There is no setup or installation to do on the client machine, nor does this machine need to have access to any database. The only requirement for this computer is that it can run html through a Web browser, such as Microsoft Internet Explorer 4.01 or Netscape Navigator 4.0 (See Section 2.1.3.1, “Client Web Browsers”). By accessing the URL that you (the Discoverer administrator) provide, users can connect and run Oracle Discoverer 3i Viewer Edition to view data.

1.3.2 Second tier - the HTTP Server

The second tier is the HTTP Server having the Discoverer 3i Viewer Servlet installed in the web server’s servlet engine. The Locator must be accessible from the HTTP server.

1.3.2.1 What is a Servlet?

A Servlet comprises modules of Java code that run as a server application to answer HTTP requests (hence the name "Servlets", similar to "Applets" which are used on the client side). The servlet reduces to a minimum any client-side processing.

1.3.2.2 What is a Servlet Engine?

A Servlet Engine comes as part of (or a plug in to) an HTTP Server and is the environment in which the servlet runs. The Servlet Engine incorporates a Java Virtual Machine (JVM) and implements the Java servlet API.

1.3.2.3 HTTP Server Components

The HTTP server (servlet engine) contains the following components:

- The Discoverer Servlet and XML/XSL Processor(generates output pages).

1.3.2.3.1 Discoverer Servlet The Discoverer Servlet generates HTML pages from HTTP requests using an XSL processor.

1.3.3 Third tier - the Discoverer Application Server

The third tier is the Discoverer Application Server. The Server consists of three basic components: the Locator, the Session, and the Preferences.

The components are installed on one or more **application servers**. You can install Discoverer Application Server on one machine or across many machines.

In addition, two CORBA (Common Object Request Broker Architecture) components from VisiBroker—an Object Activation Daemon (OAD) and a SmartAgent component—are also

installed. These CORBA components are responsible for activating new components and providing a location service when a user requests that a Discoverer session begin.

1.3.3.1 Discoverer Application Server Components

The Discoverer Application Server contains the following components:

- The Session component.
- The Locator component.
- The Preferences component.

1.3.3.1.1 The Session Component A Discoverer server session is created for each user and performs all the business intelligence of Discoverer 3i Viewer for a given user. Once a session is started, it is the user's instance of Discoverer 3i Viewer. The Session component contains all of the application logic and performs all of the Discoverer operations such as connecting to the database or opening a workbook.

Machines with a Session component installed can run multiple concurrent sessions for clients. To increase overall performance, you can install the Session component on many individual application servers, and each one of them can run multiple concurrent sessions. Distributing the Session component on several servers also improves availability. If one server is not operating, other servers handle the session requests.

The Session component can run on any server (application or HTTP) in the Discoverer Server configuration as long as the server is a Windows NT machine.

1.3.3.1.2 The Locator Component The purpose of the Locator is to receive a request for a session from the servlet (the request is initiated after a URL is sent to the servlet from the client browser), find the next application server available, start a new session, and return a reference for the new session back to the servlet. Once the servlet has received this reference, the servlet and the session communicate via the Discoverer Server Interface(the model); and the Locator waits for the next request. The Locator component is installed on the HTTP server. You need only one Locator component on the network for the Discoverer Server.

The Locator component also helps balance the load on the available application servers because it determines which application server will start each requested session. You can specify how the Locator allocates sessions to achieve the best performance.

1.3.3.1.3 The Preferences Component The Preferences component provides a single location for preference settings for all end users. The Discoverer Server relies on

stored preference settings to dictate certain aspects of behavior. You install only one Preferences component for the Oracle Discoverer Server.

Having a single Preferences component is important in a distributed environment where different components can run on different machines. The Preferences component provides consistent preference settings for all components regardless of where they are running. The Preferences component stores and reads preferences from the Windows Registry. The Preferences component must be installed on a server running Windows NT.

1.3.4 Fourth tier - the database

The fourth tier of Discoverer is the database. The database contains the data users want, the End User Layer (EUL) that provides an easy to understand view of the data, and the Discoverer workbooks that users can work with to view and analyze the data. The EUL is created and maintained with the Discoverer Administrator Edition.

Note: Before users can use Discoverer 3i Viewer to view data, the database **must** contain a Discoverer 3.1 EUL. You must create or update the EUL with Oracle Discoverer 3.1.36 or later of the Administration Edition for Windows95/98/NT. If you are currently using Discoverer 3.0.8, you need to upgrade to Discoverer 3.1.36 or later. If you are using Discoverer 3.1.25, you need to install the Discoverer 3.1.36 patch. Discoverer 3.1.36 is Y2K compliant and assures that your EUL and software will work correctly in the year 2000.

1.3.5 Discoverer 3i Viewer Components and Hardware

The Discoverer components must each be installed on an appropriate machine. Three kinds of server can make up the Discoverer architecture:

- The HTTP server.
- The Discoverer Application server.
- The Master Discoverer server.

1.3.5.1 The HTTP Server

The machine on which the HTTP server and servlet engine are installed (also hosts the Discoverer 3i Viewer Servlet component). If you install Discoverer Application server on a single machine, the machine must be an NT server (See Section 2.1.3.2, “HTTP Servers supported by Oracle Discoverer 3i Viewer Edition”).

1.3.5.2 The Discoverer Application Server(s)

If you distribute the software components of the Discoverer Application Server across several machines, then install the Discoverer Application servers and the Session components on the same machine. You can have many servers as part of your Discoverer environment. For example, if you install the Session component on three machines, each is a Discoverer Application server and multiple sessions can be started on each one.

If you install all components on the same machine it becomes both the Discoverer Application server and HTTP server.

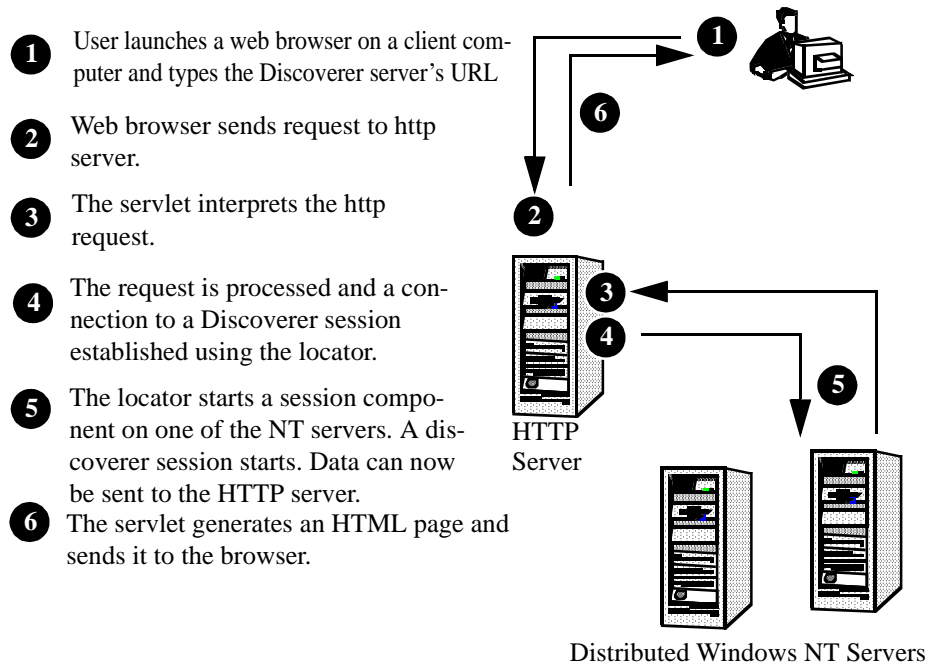
1.3.5.3 The Master Discoverer Application Server

If your Discoverer Application Server environment includes several servers, you should designate one as the Master Discoverer Server. It should contain the Preferences and Session components. The remaining servers will only host the Session component.

1.4 How Oracle Discoverer 3i Viewer Edition Works

This section describes how Oracle Discoverer 3i Viewer Edition works—from the point when the user launches the browser on the client computer to when data access becomes available. The following figure illustrates the basic process.

1.4.1 The Oracle Discoverer 3i Viewer Edition process



1.4.2 Oracle Discoverer 3i Viewer Edition Architecture

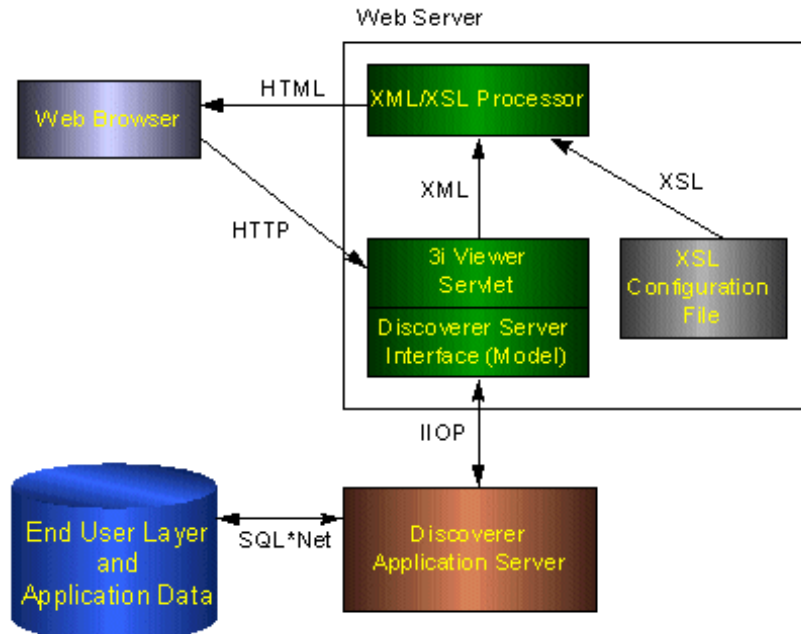


Figure 1–2 The Oracle Discoverer 3i Viewer Edition Architecture

1.4.3 Invoking Oracle Discoverer 3i Viewer Edition

Oracle Discoverer 3i Viewer Edition is invoked via a URL from a standard Web Browser.

The URL is processed by a servlet running in the servlet engine. The servlet uses the Locator to communicate with the Discoverer Application Server.

Note: The Discoverer Application Server can be used by both the Oracle Discoverer 3i User Edition and Oracle Discoverer 3i Viewer Edition, this means that the Discoverer Application Server need only be installed once for both applications.

1.4.4 Processing the http request

The Oracle Discoverer 3i Viewer Edition Servlet interprets the HTTP request from the client browser, and makes the necessary calls to the Discoverer Application Server.

The server response represented in XML is generated by the servlet and sent to an XML/XSL processor.

This combines the XML with an XSL configuration file that defines the representation of the User Interface and generates the output(eg HTML) to send back to the browser.

1.4.4.1 Application and Presentation Logic

The Oracle Discoverer 3i Viewer Edition is composed of two primary layers - the application logic and the presentation logic.

The application logic manages the handling of the HTTP request, the state of the Discoverer application server, and generates the XML representing the logical state of the Discoverer server and the data for a given client.

The presentation logic takes the XML and uses XSL to generate a response in a given format (e.g. HTML, Excel, XML etc.). The presentation logic can be customized to alter the appearance of user interface(by editing XSL files). See *Section 5, “Customizing Oracle Discoverer 3i Viewer Edition”* for details.

1.4.5 Scalability and load balancing

The Oracle Discoverer 3i Viewer Edition Servlet and Discoverer Application Server can both run on the Web Server, if required (See Section 2.3.1.4, “Installing Oracle Discoverer 3i Viewer Edition Component and Master Server on a Single Machine”), but they are designed to be deployed on separate and multiple machines (See the Oracle Discoverer 3i Installation and Administration). The Web Server may then be replicated using standard Web Farm techniques and the Discoverer Application Server can be replicated by specifying the machines available to Discoverer in a configuration file. Discoverer Application Server Sessions are then started on alternate machines to balance the load.

In this way very large numbers of Discoverer Users may be supported, since there is no single bottleneck. Multiple Discoverer sessions can run on a single machine, or can be spread across multiple machines as required.

The Discoverer 3i Viewer servlet can also be distributed.

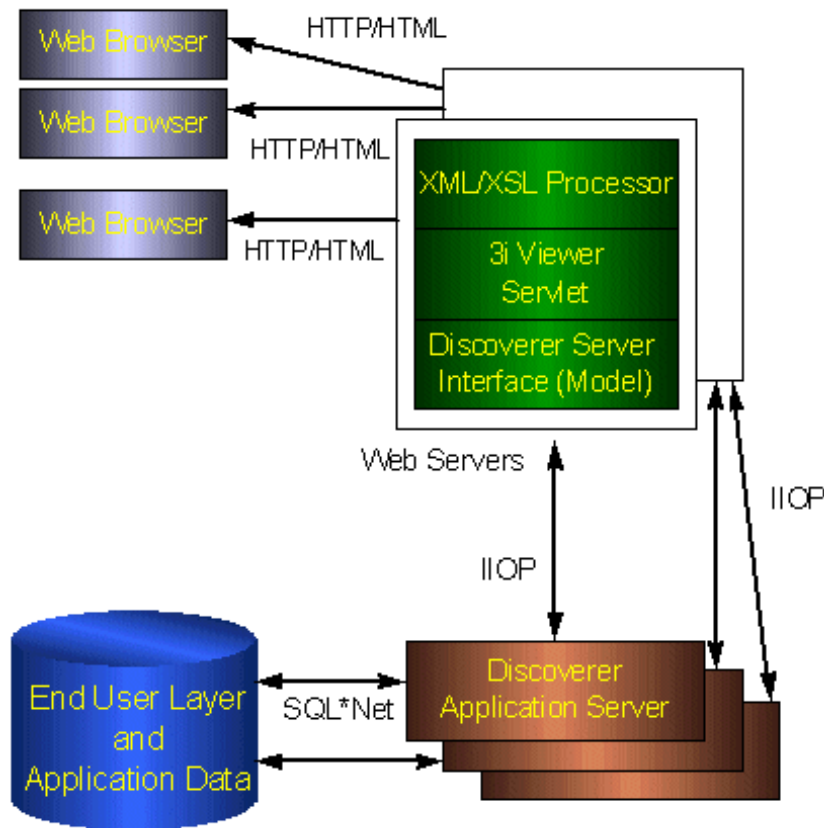


Figure 1–3 Using multiple Discoverer Application Servers for scalability

In Figure 1–3 two web servers are used to spread the load for three browser sessions. There are three server machines, with one Discoverer Application Server running on each. In a real system there would be many users using each web and application server. Discoverer allows you to determine exactly how you want to spread the load across the available machines.

Installing Oracle Discoverer 3i Viewer Edition

Please read the release notes (Readme.wri) in conjunction with this guide. These contain the latest information and may affect instructions in this guide.

Oracle Discoverer 3i Viewer Edition does not require any downloads, plugins nor installation of any code on the client. The only client requirement is to be able to communicate via HTTP and render HTML or XML. See Section 2.1.3, “Software requirements” for the browser specification.

Before installing the components of Oracle Discoverer 3i Viewer Edition, Oracle Discoverer Server must first be fully installed and configured.

This chapter provides the information you need to install the necessary components to run Oracle Discoverer 3i Viewer Edition. The information covered in this chapter includes:

- Hardware and Software Requirements
 - Client hardware requirements
 - Server hardware requirements
 - Software requirements
- Planning the Discoverer Server Configuration
- Installing Discoverer 3i Server
 - Installing Discoverer 3i Server and Servlet Software
 - The Installed Directories
 - Removing Discoverer Server Components
 - Registering Server Components
 - Additional Discoverer Server configuration tasks
 - Common Configuration
 - Configuring Apache Web Server and Servlet Engine
 - Configuring Netscape Enterprise Server 4.0 and Servlet Engine

- Configuring JRun Servlet Engine
- Configuring ServletExec 2.2c Servlet
- Oracle Discoverer 3i Viewer Edition .XML File Configuration

2.1 Hardware and Software Requirements

This section references the minimum hardware requirements and the software necessary to install and run Oracle Discoverer 3i Viewer Edition.

2.1.1 Client hardware requirements

Oracle Discoverer 3i Viewer Edition is rendered in html and requires no extra hardware, only the ability to run a browser (See Section 2.1.3.1, “Client Web Browsers”).

2.1.2 Server hardware requirements

For servers running Discoverer Server sessions:

- Pentium processor (or the equivalent)

2.1.2.1 Server memory requirements

The following table list the RAM needed for each Discoverer Server component.

Table 2–1 Server memory requirements by component

Discoverer Component	RAM Required
Locator	5.5 MB (and 4.5 MB for JRE)
Session	Minimum 3.8 MB per active concurrent session (actual requirements vary based on work-book size and complexity)
Preferences	0.5MB

2.1.3 Software requirements

The software requirements for the environment are:

- Web browser software [installed on each client computer]
- A supported Web Server (See section ‘*HTTP Servers supported by Oracle Discoverer 3i Viewer Edition*’)
- Oracle Discoverer Server

- Oracle Discoverer Administrator Edition version 3.1.36 (or later) and corresponding EUL (End User Layer)
- A supported Servlet Engine
- A supported JDK or JRE
- A supported JVM(Java 2.0 VM with Hotspot is preferred)
- Oracle database [installed] or other database if using ODBC

2.1.3.1 Client Web Browsers

The following Web browsers support Oracle Discoverer 3i Viewer Edition:

Table 2–2 Supported browsers by platform(All higher versions supported)

Operating System	Microsoft Internet Explorer		Netscape Navigator	
	3.02*	4.01	3.0*	4.0X
Windows NT 4.0	X	X	X	X
Windows 98		X	X	X
Windows 95	X	X	X	X
Solaris/SPARC			X	X

Although version 3.x browsers are supported for use with Oracle Discoverer 3i Viewer Edition(see Table 2–2), version 4.x (and above) browsers are recommended for optimum viewing.

Service pack 5 for NT is recommended.

2.1.3.2 HTTP Servers supported by Oracle Discoverer 3i Viewer Edition

Oracle Discoverer 3i Viewer Edition supports the following HTTP servers/servlet engines:

- Apache Server 1.3.9
Apache JServ 1.0 servlet engine(Incl. JRE 1.2.2 and JSDK 2.0)
JRE 1.2.2(Java Runtime Environment) and JSDK 2.0 (Java Servlet Development Kit) must be installed before Apache JServe. Both these components are available from Sun.
- MS Internet Information Server(IIS) 4.0
JRun servlet engine 2.2.3
ServletExec 2.2
- MS Personal Web Server(PWS) 4.0
- Netscape Enterprise Server, 4.0

- Oracle Application Server (OAS) 4.0

The HTTP servers must be able to handle global mime types for .exe files.

2.1.3.3 Additional environment information required

You also need the following information to install Discoverer 3i Application server:

- the IP address or machine name of each server that will run sessions.
- a directory on the Web server that is accessible to remote clients.
- database connection information,
that is, database SID(s), usernames, protocols, and port numbers for configuring the
Discoverer Server after installation (or the necessary files, such as tnsnames.ora, that are
needed to access all desired databases.)

Note: If you are not familiar with these settings, contact your Oracle
database administrator.

2.2 Planning the Discoverer Server Configuration

The following table shows which components you can install, on which server, and the required types of server:

Table 2–3 Servers Required for Discoverer Server Components

Discoverer Server name	Installable component	Type of server
HTTP Server	Locator	Windows 4.0 NT Server or Solaris
HTTP Server	Discoverer 3i Viewer Edition	Any HTTP Server (for example, NT or Solaris)
Master Discoverer Server	Preferences	Windows 4.0 NT Server
Master Discoverer Server	Session	Windows 4.0 NT Server
Other Discoverer Server	Session	Windows 4.0 NT Server

Refer to your Web Server documentation to find out whether you can install to NT Workstation or not.

The Locator, Session, and Preferences components must all be installed on the same subnet. If you plan to install multiple instances of Discoverer 3i Application server on the subnet, for example one instance for the Accounting Department and another for Engineering, install a Locator component and Preferences component for each instance, and be sure to give the instances unique names during the installation process.

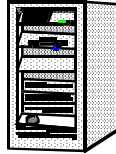
The following illustration shows typical configurations of Discoverer Server.

Discoverer Server Configurations

Single Machine Installation



Client Computers



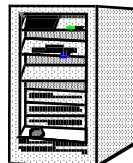
Discoverer Server

1. Must be an HTTP server—Windows NT 4.0
2. Contains all Discoverer Server components
3. Sessions run on this machine

Typical Two Machine Installation

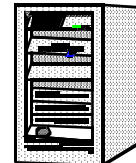


Client Computers



HTTP Server

1. Can be any HTTP server
2. Contains Locator (recommended)
3. Sessions do not run on this machine
4. Contains SmartAgent (recommended)



Application Server

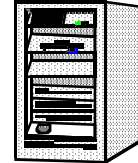
1. Not an HTTP server
2. Must be Windows NT 4.0 server
3. Contains Preferences, Session, and Object Activation Daemon
4. Contains SmartAgent (recommended)
5. Sessions run on this machine

Typical Distributed Installation



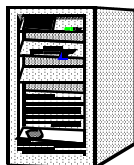
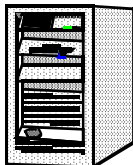
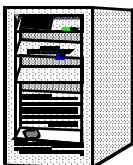
HTTP Server

1. Can be any HTTP server
2. Contains Locator (recommended)
3. Sessions do not run on this machine
4. Contains SmartAgent (recommended)



Master Discoverer Server

1. Not an HTTP server
2. Must be Windows NT 4.0 server
3. Contains Preferences, Session, and Object Activation Daemon
4. Contains SmartAgent (recommended)
5. Sessions can run on this machine
6. The tnsnames.ora file on this machine should be identical to the other Discoverer servers



Other Discoverer Server(s)

1. Not HTTP servers; do not contain Preferences
2. Each machine contains Session and Object Activation Daemon
3. Each machine contains SmartAgent (recommended)
4. Sessions run on these machines
5. The tnsnames.ora files on each machine should be identical

Note: Configure the Net8*Client software to provide access to the Oracle databases the users will access. Those databases contain the Discoverer EUL, Business Areas, and workbooks. If you want to provide access to the databases other than through the tnsnames.ora file, you can use an Oracle Name Server that is identified in your SQLNET.ora file.

When installing Discoverer Server in a distributed mode, designate one machine as the Master Discoverer Server to host the Discoverer Preferences and Session component. Each machine that will run Oracle Discoverer 3i Viewer Edition sessions requires a Session component.

Because each concurrent active session can require 3.8 to 18 MB of RAM, you can estimate the number of concurrent sessions that each machine can support. To help you allocate machine resources for concurrent sessions, load balancing among the machines is part of the setup procedure. See Section 2.3.4.1.1, “Examples of Load Balancing” on page 2-53 for a complete description of load balancing.

2.3 Installing Discoverer 3i Server

Step-by-step instructions explain how to install or remove the following:

- Oracle Discoverer 3i Server over multiple machines
- Oracle Discoverer 3i Server and 3i Viewer Servlet component on a single machine
- Oracle Discoverer 3i Viewer Servlet component through the Custom Install.

The following section headings explain the process:

- Installing Discoverer 3i Server and Servlet Software
- The Installed Directories
- Removing Discoverer Server Components
- Registering Server Components
- Additional Discoverer Server configuration tasks

2.3.1 Installing Discoverer 3i Server and Servlet Software

You can install Oracle Discoverer 3i Edition Server and Servlet software on a single computer or distributed over several servers. A distributed installation is recommended for wide use of Discoverer Server. A single-computer installation is typically for running a demonstration, evaluating Discoverer Server, or setting it up for a small group of users.

WARNING: Before you start to install Oracle Discoverer 3i Viewer Edition please ensure that all Discoverer processes are shut down on the machine you are installing on. This includes Discoverer 3.1W, Discoverer 3i, processes and locators.

If you find any Discoverer processes running you must end them before beginning the installation.

2.3.1.1 Web Server and Servlet Prerequisites

You can deploy Oracle Discoverer 3i Viewer Edition across a range of different Web Servers and Servlet Engines, these must be installed before you can install and configure the Oracle Discoverer 3i Viewer Edition Servlet component.

For a brief overview of servlets and servlet engines see Section 1.3.2.1, “What is a Servlet?” and Section 1.3.2.2, “What is a Servlet Engine?”.

For step-by-step installation instructions for the servlet see the appropriate areas in Section 2.3.1.3, “Installing Discoverer 3i Server Distributed on Multiple Machines”, Section 2.3.1.4, “Installing Oracle Discoverer 3i Viewer Edition Component and Master Server on a Single Machine” or Section 2.3.1.5, “Custom Installation”.

For general web server and servlet configuration details see Section 2.3.5, “Common Configuration”.

Note: All configurations have been tested on the Microsoft’s NT 4.0 with Service Pack 5.

2.3.1.1.1 Web Servers supported

Ensure that **one** of the following web servers is installed before continuing.

- Apache Web Server 1.3.9
- Microsoft Internet Information Services(IIS) 4.0

NOTE: An NT Server is required if you are installing Oracle Discoverer 3i Viewer Edition with Microsoft IIS. Installation with IIS on an NT WorkStation is NOT possible.

- Microsoft Personal Web Server (PWS) 4.0
- Netscape Enterprise Server 4.0
- Oracle Application Server (OAS) 4.0

2.3.1.1.2 Java Environments supported

Any of the following can be used and must be installed before installing Oracle Discoverer 3i Viewer Edition.

- JDK 1.1(Java Development Kit)
- JDK/JRE 1.2 (Java Runtime Environment)

- JSDK 2.0(Java Server Development Kit) (Only if Apache Web Server with Apache JServ is chosen as a solution. It is worth noting that JServe 1.0 will not accept JSDK 2.1)

NOTE: JDK/JRE 1.2.2 running with Java Hotspot(currently 1.0.1) is recommended as it gives significant performance gain over previous releases.

Servlet Engine → Web Server ↓	JRun v2.3.3	ServletExec v2.2c	JServ v1.0	Built-in servlet engine
MS IIS 4.x	✓	✓		
MS PWS 4.x	✓	✓		
Netscape ES 4.0*				✓
Apache 1.3.6	✓		✓	
Apache 1.3.9	✓	✓	✓	
OAS 4.08				✓

Figure 2–1 Servlet engine compatibility chart with supported web servers

* Netscape ES 4.0 comes with its own built in servlet Engine, but you can also use other servlet engines

2.3.1.1.3 Servlet Engines supported

Any of the following can be used and must be installed before installing Oracle Discoverer 3i Viewer Edition.

- JRun 2.2.3
- ServletExec 2.2c
- Apache JServ 1.0
- Netscape Enterprise Server 4.0 has its own built in servlet engine.

2.3.1.1.4 What is not covered in this guide

- Web Server installation
- Servlet Engine installation
- Java Development Kit(JDK) installation
- Java Runtime Environment installation
- Java Servlet Development Kit(JSDK) installation

2.3.1.2 Suggested Installation path

Depending on what you have already installed a number of installation options are available. The installation options and the choices available for each option, are presented here as a guide.

Decide which of the following categories you fall into before installation:

- **Oracle Discoverer not already installed**
Installation Options:
 1. Distributed Installation
(See Section 2.3.1.3, “Installing Discoverer 3i Server Distributed on Multiple Machines”)
 2. Single Machine Installation
(See Section 2.3.1.4, “Installing Oracle Discoverer 3i Viewer Edition Component and Master Server on a Single Machine”)
- **Oracle Discoverer 3i User Edition already installed**
Installation options:
 1. Custom Installation (Discoverer Viewer)
(See Section 2.3.1.5, “Custom Installation”)
- **Oracle Discoverer 3.1W already installed**
Read Section 2.3.12, “Upgrading from Discoverer Viewer Version 3.1”.
Installation options:
 1. Distributed Installation
(See Section 2.3.1.3, “Installing Discoverer 3i Server Distributed on Multiple Machines”)
 2. Single Machine Installation
(See Section 2.3.1.4, “Installing Oracle Discoverer 3i Viewer Edition Component and Master Server on a Single Machine”)

- **Oracle Discoverer 3i Viewer Edition already installed but you require further distributed installation of Oracle Discoverer 3i Viewer Servlet(s)**

Installation options:

1. Custom Installation (3i Viewer Servlet)
(See Section 2.3.1.5, “Custom Installation”)

2.3.1.3 Installing Discoverer 3i Server Distributed on Multiple Machines

Installing on multiple machines involves the following steps:

- **Step 1: Install the HTTP server component which includes the 3i Viewer and Locator.**

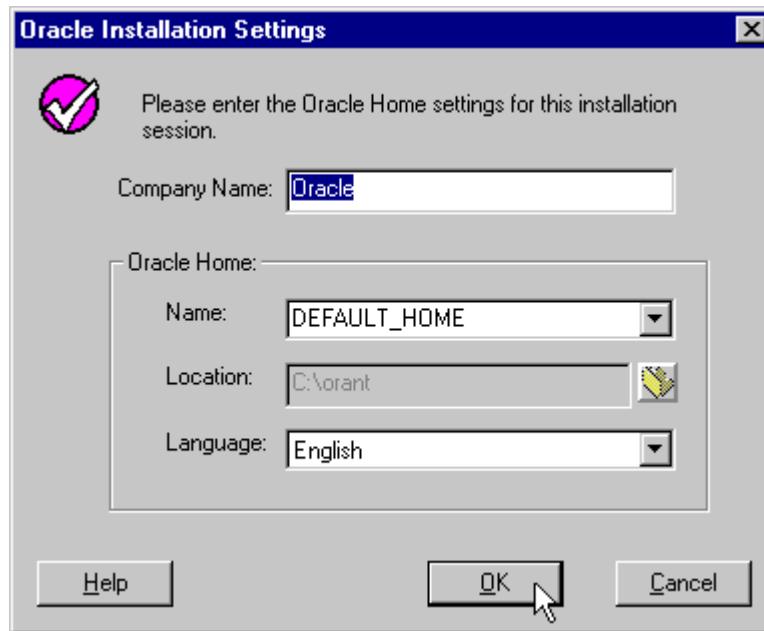
The HTTP server can be run on any platform:

- If the HTTP server is running Windows NT, continue with the instructions in this section.
- If the HTTP server is running on Solaris, please refer to Section 2.3.1.3.4, “To Install the Discoverer Server Software on Solaris running an HTTP Server” on page 2-29.
- If the HTTP server is not running on Solaris or Windows NT, copy the HTML files and downloadables to the HTTP server, then install the Locator on a Windows NT machine. This process is described in more detail in Section 2.3.1.3.5, “To Install the Discoverer Software on an HTTP Server Not Running Windows NT or Solaris” on page 2-33.
- **Step 2: Install the the Master Discoverer Server which includes Discoverer Preferences and Session component.**
- **Step 3: Install the Other Discoverer Server component which includes the session component on each server that will be used for sessions.**

2.3.1.3.1 To Install the Oracle Discoverer 3i Viewer Edition Servlet on an HTTP Server Running Windows NT

1. Insert the Oracle Discoverer 3i Viewer Edition CD. The Oracle Installer starts. If the Installer does not start, double-click Setup.exe in the root directory on the CD.

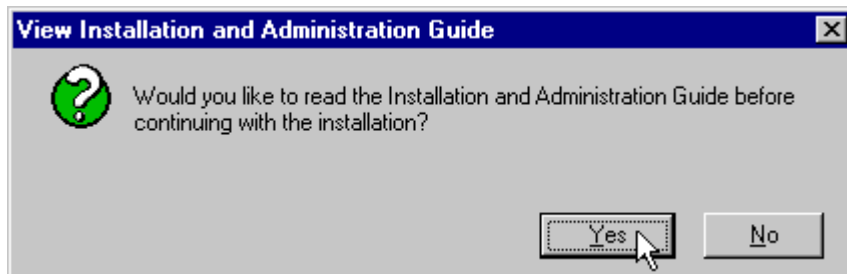
The Oracle Installation Settings dialog box opens.



2. Type or choose the following information and click OK:
 - Company Name—Your company's name
 - Name—Select [DEFAULT_HOME] for Discoverer Server 3.3.
 - Location—Select the path for [DEFAULT_HOME]. If you previously installed products into the DEFAULT_HOME, you will not be able to modify this directory.
 - Language—The language used on this server.

Note: The language setting does not determine which translated files get installed for Discoverer components. All Discoverer-specific translations are always installed. The Language settings also sets the NLS_LANG variable on NT systems.

The View Installation and Administration Guide dialog appears.



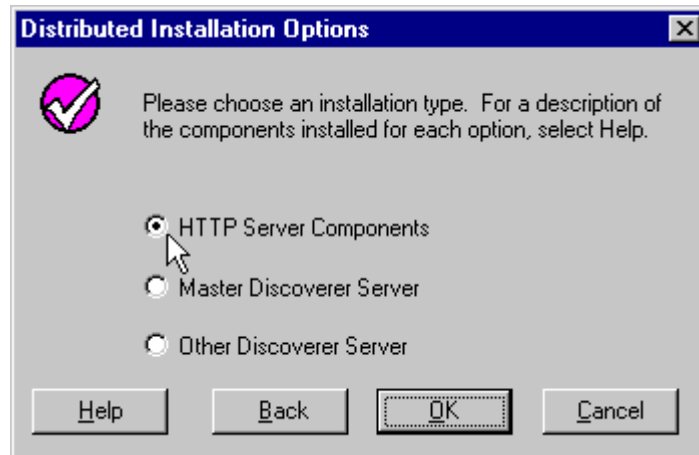
3. Before continuing with the installation, click Yes to view the Discoverer 3i Viewer Installation and Administration Guide. Your computer's default Web browser opens and displays the Installation Guide's table of contents. View online or print out the Installation Guide.

When you return to the Oracle Installer, the Discoverer Server Installation Options dialog appears.



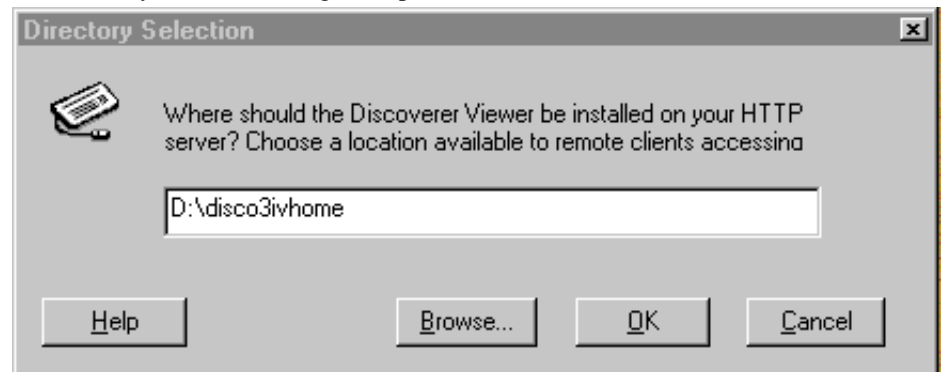
4. Click Distributed Installation and click OK.

The Distributed Installation Options dialog box opens.



5. Because you are installing the software for the HTTP server, click HTTP Server Components and click OK.

The Directory Selection dialog box opens.



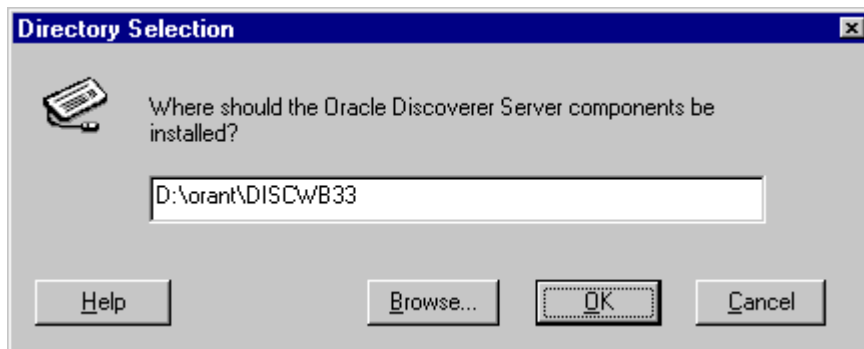
6. Type the directory name or browse to a location where you want to install the Oracle Discoverer 3i Viewer Edition files. These files include the Oracle Discoverer 3i Viewer Edition Servlet, Help, Docs and the Images used to generate output pages displayed on a client machine on input of a URL by a user. These files need to be installed in directory on the HTTP server where remote users can also access them.

This directory will be referred to as **disco3ivhome** in later sections of the installation. It is recommended that you call the directory disco3ivhome.

Note: Where Oracle Discoverer 3i User Edition is already installed, Oracle Discoverer 3i Viewer Edition can, if needed, be installed to an additional HTTP server. This may be necessary where the existing HTTP server does **not** have its own servlet engine. In this case an alternative HTTP server (with its own Servlet engine) can be installed on another machine and Oracle Discoverer 3i Viewer Edition can then be installed to that HTTP server, in this case Oracle Discoverer 3i User Edition and 3i Viewer Edition can both be run from the same installation.

7. Click OK.

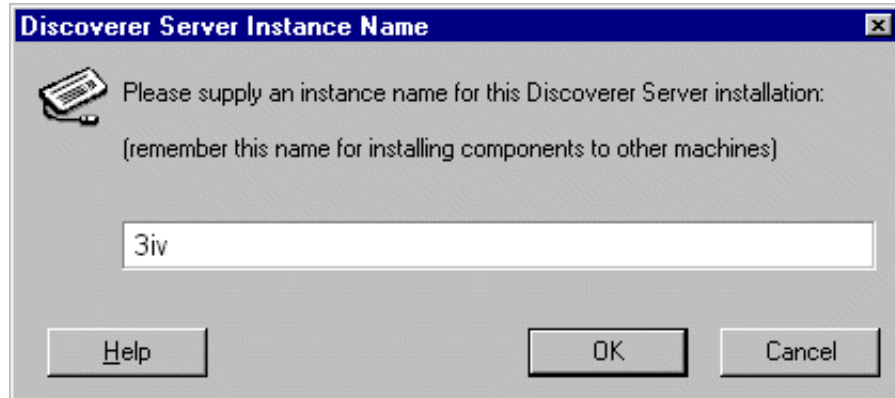
The Directory Selection dialog box opens. It lists the default Oracle Home directory. You can choose another directory if you want



Note: If you have already installed any other Discoverer Server components, such as the Preferences or Session components, onto this machine, you will not see this dialog.

8. Click OK.

The Discoverer Server Instance Name dialog box opens.



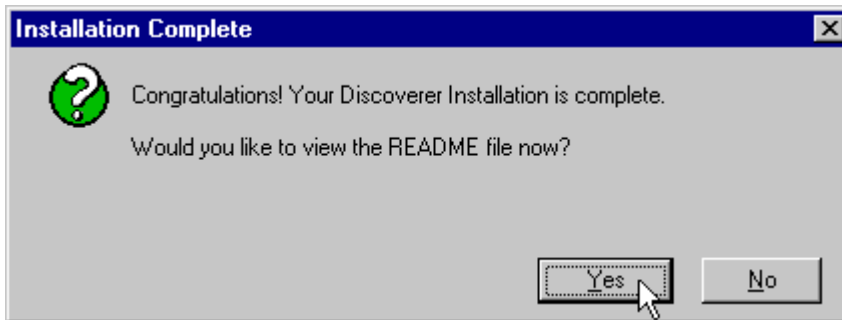
If do not accept the default value above, write down the name you entered here as it will be needed later in the installation.

If you want to have multiple installations of Discoverer 3i on a single subnet, each installation “instance” must be unique. For example, one instance may be dedicated to the Accounts Payable department, and another instance may be dedicated to the Engineering department. Each instance must have a unique name. This name is used in the .XML file configuration, (See Section 2.3.4.4, “Oracle Discoverer 3i Viewer Edition .XML File Configuration”).

Note: The Instance name is prepended to the name strings that identify the Discoverer components (Locator, Preferences, and Session). For example, in the sample shown above, the batch file that registers Discoverer Preferences would identify the same as 3ivOracleDiscovererPreferences33. This ensures that each instance of Discoverer Server on the network refers to its own components.

9. Type a name for the instance and click OK.

Installation begins. The installation on the HTTP server installs the Oracle Discoverer 3i Viewer Edition servlet files and the Discoverer Locator. When the installation is finished, the Installation Complete message appears.



10. Click Yes to read the README file. It contains late-breaking information about Oracle Discoverer 3i Viewer Edition that may affect your servers and users.
11. When you're finished with the README file, close it.

Installation creates and installs an automatic NT Service named "OracleDiscoverer3i" which loads and starts the Locator component and CORBA services.

Note: The Locator will also detect the Preference component and Session component(s) that you will install later.

You are now ready to install the software on the Master Discoverer Server (for more information, see Section 2.3.1.3.2, "To Install the Discoverer Server Components on the Master Discoverer Server").

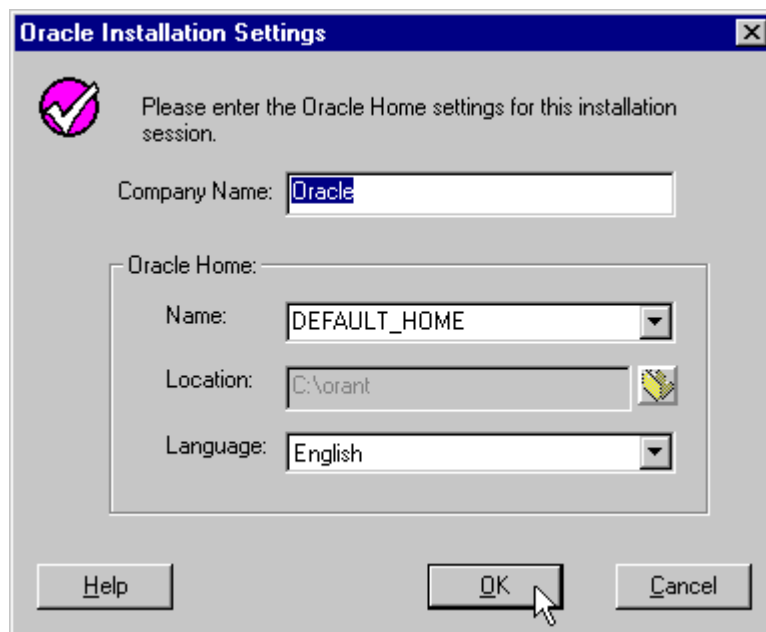
2.3.1.3.2 To Install the Discoverer Server Components on the Master Discoverer Server

If you are already running Discoverer Server services for this or any other Discoverer product, they must be shut down before continuing. To do this select 'Services' from the Control Panel and stop the service "OracleDiscoverer3i".

The Master Discoverer Server must be a Windows NT 4.0 Server.

1. Insert the Discoverer 3i Viewer Edition CD into the machine you designate as the Master Discoverer Server.

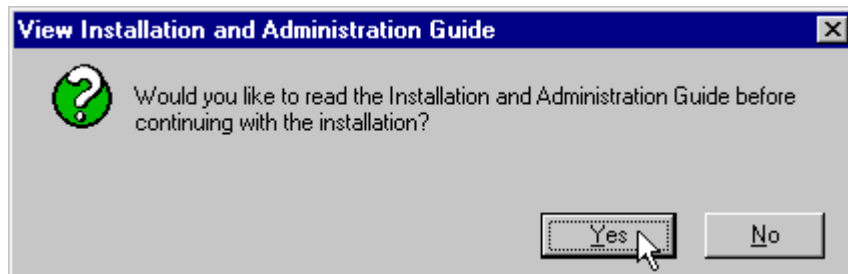
The Oracle Installation Settings dialog box opens.



Make sure to select the [DEFAULT_HOME] directory.

2. Click OK.

The View Installation and Administration Guide dialog appears.



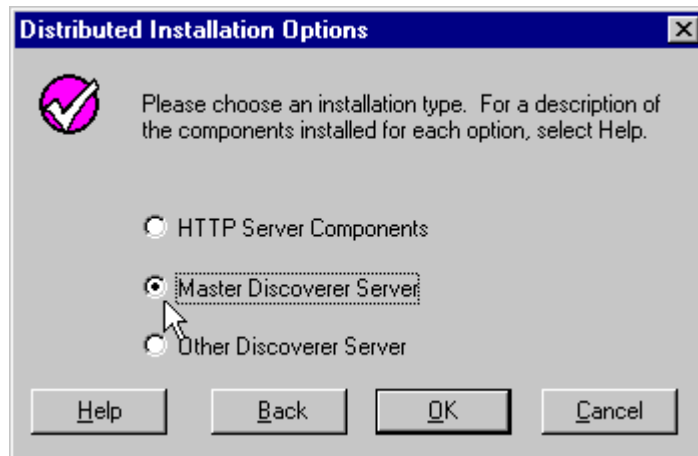
3. Before continuing with the installation, click Yes to view the Discoverer 3i Viewer Installation and Administration Guide. Your computer's default Web browser opens and displays the Installation Guide's table of contents. View online or print out the Installation Guide.

When you return to the Oracle Installer, the Discoverer Server Installation Options dialog appears.



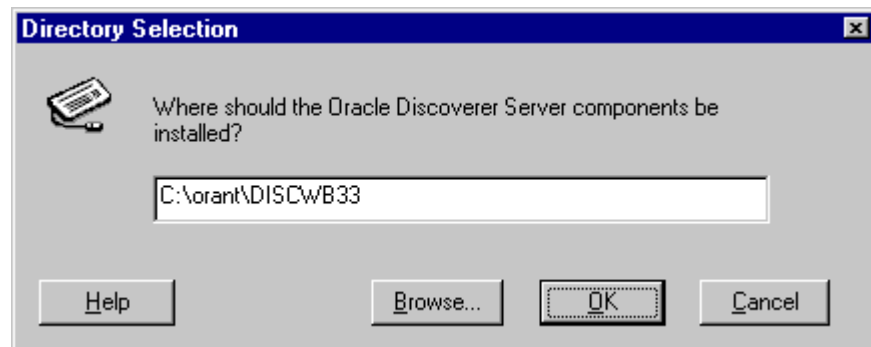
4. Because you are continuing the distributed installation, click Distributed Installation and click OK.

The Distributed Installation Options dialog box opens.



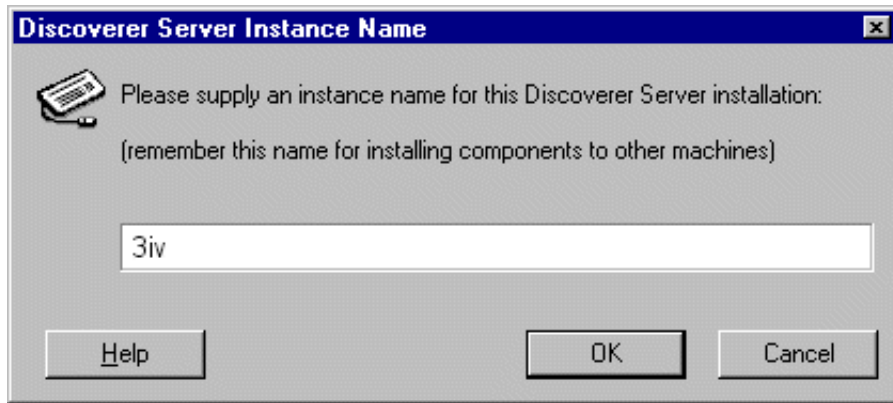
5. Click Master Discoverer Server and click OK.

The Directory Selection dialog box opens. It shows the default Oracle home directory under your DEFAULT_HOME directory.



6. Click OK.

The Discoverer Server Instance Name dialog box opens.

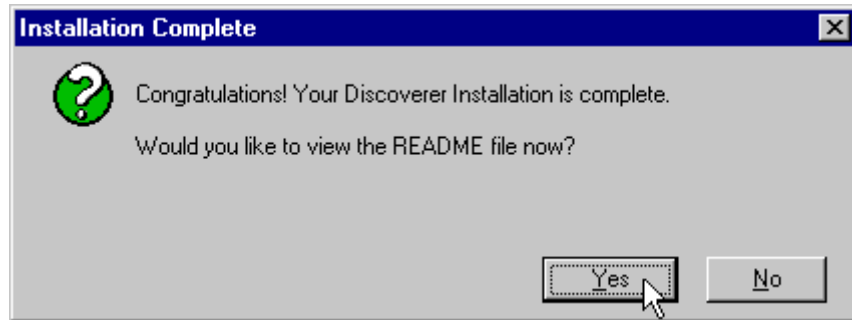


If you do not accept the default value in the example above, write down the name you entered here as it will be needed later in the installation.

-
7. Type the same Instance name that you entered for the HTTP Server. Click OK.

Important: It is very important that you set the same instance name when installing all the machines that will be running the Discoverer Server components. This name is used in the .XML file configuration (for more information, see Section 2.3.4.4, “Oracle Discoverer 3i Viewer Edition .XML File Configuration”).

Installation begins. The installation for the Master Discoverer Server installs and registers two Oracle Discoverer components: Discoverer Preferences and Discoverer Session. When the installation is finished, the Installation Complete message appears.



8. Click No because you've already read the README file when installing on the HTTP Server.
9. Exit the Installer.

Installation creates and installs an NT Service named "OracleDiscoverer3i" which automatically loads and starts the Locator and CORBA services. To stop and restart this service from the Windows Start menu, select Setting | Control Panel | Services.

You do not need to register the Preferences and Session components with the Locator because the OracleDiscoverer3i service automatically does this for you. However, if for any reason your components are not properly registered with the Locator, see Section 2.3.4.3, "Registering Server Components".

Installation on the Master Discoverer Server also creates two Program Groups: Oracle Discoverer 3i Server and Oracle Discoverer 3i Server Setup

If you're installing on additional machines, continue with Section 2.3.1.3.3, "To Install Discoverer Server Components on Additional Machines".

If you are not installing on additional machines and the database is on the same machine as the Master Discoverer Server, continue with Section 2.3.4.4, "Oracle Discoverer 3i Viewer Edition .XML File Configuration".

If you are not installing on additional machines and the database is on a different machine to the Master Discoverer Server, you will need to add an entry to the tnsnames.ora file (for more information, see Section 2.3.4.2, "Editing the tnsnames.ora Files"). When you have modified the tnsnames.ora file, continue with Section 2.3.4.4, "Oracle Discoverer 3i Viewer Edition .XML File Configuration".

Note: You do not have to install on the additional machines at this time. Instead you could configure Discoverer Server first, and then install on the additional machines later. See Section 2.3.4.3, “Registering Server Components” on page 2-59 for details about configuration.

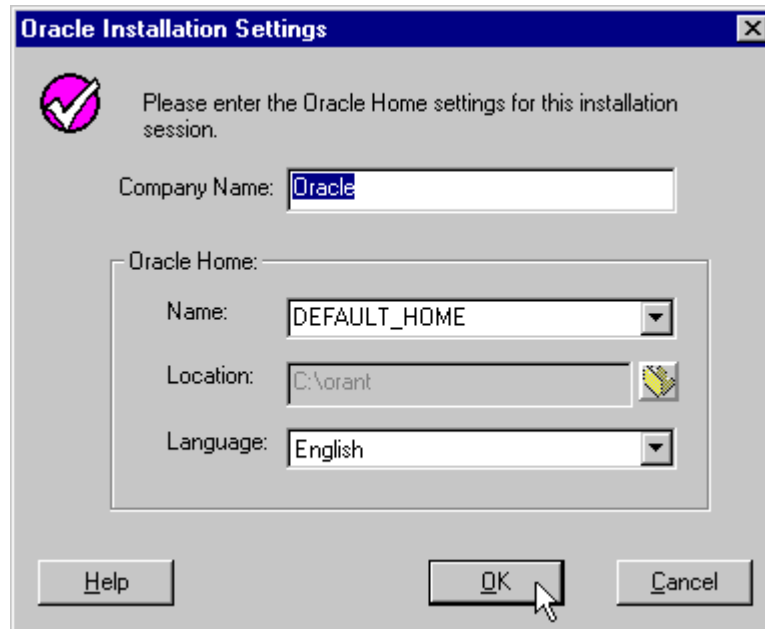
2.3.1.3.3 To Install Discoverer Server Components on Additional Machines

If you are already running Discoverer Server services for this or any other Discoverer product, they must be shut down before continuing. To do this select ‘Services’ from the Control Panel and stop the service “OracleDiscoverer3i”.

Installing on additional machines installs the Discoverer Session component on each one. The additional machines must be Windows NT 4.0 servers. Install Discoverer Session components on each additional machine to support more users. This is how the system scales. *A reminder:* These machines are **not** the same machines you used for the HTTP and Master Discoverer Server.

1. Insert the Oracle Discoverer 3i Viewer Edition CD into a machine that will be used to run sessions.

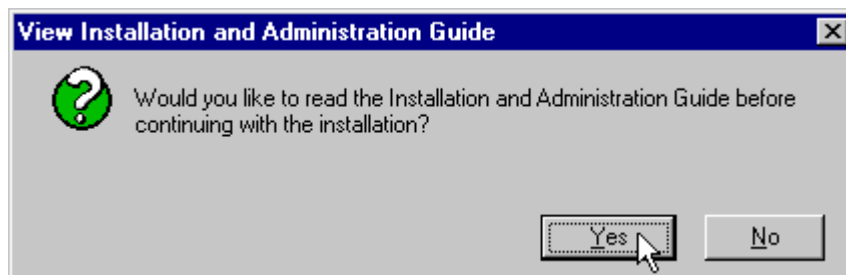
The Oracle Installation Settings dialog box opens.



Make sure to select the [DEFAULT_HOME] directory.

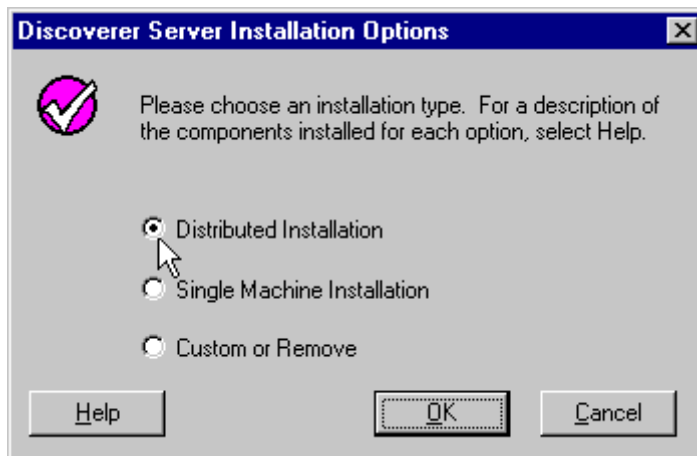
2. Click OK.

The View Installation and Administration Guide dialog appears.



3. Before continuing with the installation, click Yes to view the Discoverer 3i Viewer Installation and Administration Guide. Your computer's default Web browser opens and displays the Installation Guide's table of contents. View online or print out the Installation Guide.

When you return to the Oracle Installer, the Discoverer Server Installation Options dialog appears.



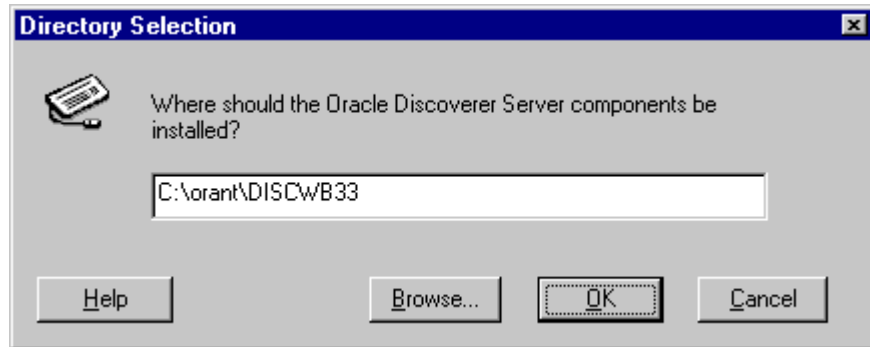
4. Because you are continuing the distributed installation, click Distributed Installation and click OK.

The Distributed Installation Options dialog box opens.



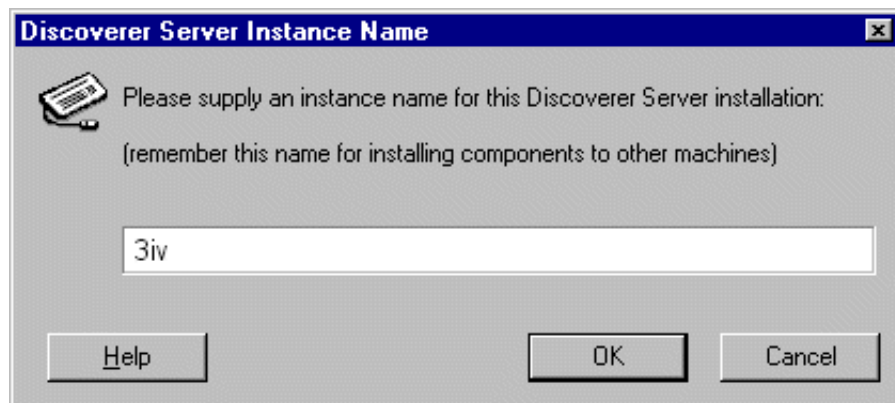
5. Click Other Discoverer Server and click OK.

The Directory Selection dialog box opens. It shows the default Oracle home directory under your DEFAULT_HOME directory.



6. Click OK.

The Discoverer Server Instance Name dialog box opens.

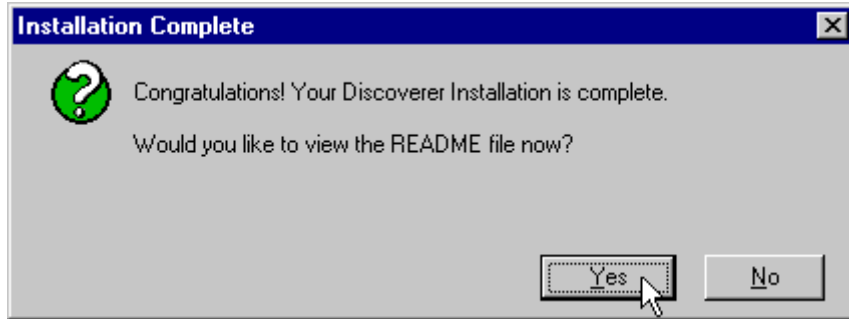


If you do not accept the default value in the example above, write down the name you entered here as it will be needed later in the installation.

7. Type the same Instance name that you entered for the HTTP Server. Click OK.

Note: It is very important that you set the same instance name on all the machines that will be running sessions. This name is used in the .XML file configuration, (See Section 2.3.4.4, "Oracle Discoverer 3i Viewer Edition .XML File Configuration").

Installation begins. The installation for the Other Discoverer Server installs and registers the Discoverer Session component. When the installation is finished, the Installation Complete message appears.



8. Click No because you've already read the README file when installing on the HTTP Server.
9. Exit the Installer.

Installation creates and installs an NT Service named "OracleDiscoverer3i" which automatically loads and starts the Locator and CORBA services. To stop and restart this service from the Windows Start menu, select Setting | Control Panel | Services.

You do not need to register the Session component with the Locator because the OracleDiscoverer3i service automatically does this for you. However, if for any reason your components are not properly registered with the Locator, see Section 2.3.4.3, "Registering Server Components".

10. Repeat on all the machines that you want to use for Discoverer 3i sessions.

See Section 2.3.2, "The Installed Directories" for a listing of the directories installed on the server.

Each additional machine can run multiple sessions; therefore, the number of additional machines you choose to use for sessions depends on how many concurrent sessions the users need, the amount of memory available, the speed of the hardware, and so forth. Add the list of machine IP addresses to the Pref.txt file and the tnsnames.ora file. For more information, see Section 2.3.4.1, "Editing the Discoverer Server Preferences" and Section 2.3.4.2, "Editing the tnsnames.ora Files".

To complete the installation see Section 2.3.4.4, "Oracle Discoverer 3i Viewer Edition .XML File Configuration".

2.3.1.3.4 To Install the Discoverer Server Software on Solaris running an HTTP Server

The Discoverer HTTP server software can be installed on machines running Solaris. Installation on an HTTP server running Solaris requires four steps:

- install the Java Runtime Environment (JRE) 1.1.6.04 or higher if you do not already have it installed
- install VisiBroker for Java 3.4.0.0
- install Oracle Discoverer 3i Viewer Edition client and Locator
- activate the Locator component

Install the software while you are logged in with the appropriate privileges (typically 'root').

The VisiBroker utilities are Java applications that require the JRE to run. The VisiBroker utilities are required to activate the Locator component and also to support communication among Discoverer 3i components located on other machines.

The Locator component must be running for the Oracle Discoverer 3i Viewer Edition servlet to connect to an available session. You can activate the Locator automatically during system initialization or from a user account.

The instructions to install on a Solaris system use the following filenames, but you would replace these filenames with the filenames you choose for your installation:

- `<temp>`—the temporary directory you choose during installation
- `<jre>`—the directory where JRE 1.1.6.04 is installed
- `<dis_root>`—the directory where the Oracle Discoverer 3i Viewer Edition client is installed
- `<name>`—the Instance name that identifies the Discoverer 3i components
- `<user>`—the user with appropriate privileges who starts the Locator component

Installing JRE 1.1.6.04

The VisiBroker utilities require a compatible Java Runtime Environment (JRE). Oracle Discoverer 3i Viewer Edition includes JRE version 1.1.7.280 or higher, which can be installed without conflicting with other JRE or JDK versions currently on the server.

1. On the installation machine, open the `/Solaris` directory of the Discoverer 3i CD-ROM.
2. Copy `/Solaris/jre116Sparc.tar` to the `<temp>` directory.

3. Unarchive the file <temp>/jre116Sparc.tar using the following command:

```
tar xvf ./jre11728oSparc.tar
```

This will extract three files:

Solaris_JRE_1.1.6_04_sparc.bin

sparc_jdk_patches.tar.Z

readme

4. Before installing JRE 1.1.6.04, view the readme file to determine if your OS version requires any patches from the sparc_jdk_patches.tar.Z file.
5. Run the file: Solaris_JRE_1.1.6_04_sparc.bin.

The JRE files are installed into a subdirectory of the current directory.

6. Change to the directory where you want to install the JRE directory tree, for example <jre>.
7. Type:

```
/bin/sh <temp>/Solaris_JRE_1.1.6_04_sparc.bin
```

The following new directory is created:

<jre>/Solaris_JRE_1.1.6_04/

where <jre> is the name of the directory where you want the JRE directory tree installed.

That completes installation of JRE 1.1.6.04.

Installing VisiBroker for Java 3.3.4.0 for Java

1. Create a directory /usr/local/vbroker.
2. Copy /Solaris/vbroker34.tar from the Discoverer 3i CD-ROM to /usr/local.
3. Change directory to /usr/local/ and unarchive vbroker34.tar using the following command:

```
tar xvf /usr/local/vbroker/vbroker34.tar
```

4. Set the following environment variables:

Table 2–4 Solaris Environment Variables

Environment Variable	Value
VBROKER_ADM	/usr/local/vbroker/adm
VBROKER_JAVAVM	<jre>/Solaris_JRE_1.1.6_04/bin/jre
path (append to existing value)	/usr/local/vbroker/bin

That completes installation of VisiBroker 3.3.4.0 for Java.

Activating the Locator Component

Before activating the Locator component, the OAD and CORBA services must be running on the Discoverer Server machine. Also, you must set the Solaris OS parameter named File Descriptors to 1024 or less (as Solaris has a limitation of 1024 descriptors per process). See your Solaris OS documentation for instructions to set this parameter.

NOTE: “The system imposes a per-process soft limit on open files, OPEN_MAX (usually 64), which can be increased, and a per-process hard limit (usually 1024), which cannot be increased.”(.. from *Solaris Manual*)

1. Copy 3iviewer.tar from the Discoverer 3i CD-ROM to the <temp> directory.
2. Change directory to the <dis_root> directory and unarchive 3iviewer.tar using the following command:


```
tar xvf <temp>/3iviewer.tar
```
3. Copy the file start_locator from the Discoverer 3i CD-ROM to <dis_root>/disco3iv/DISCWB33/applet.
4. Change the mode of the start_locator file using the following command:


```
chmod 744 start_locator
```
5. Edit the file start_locator to add the Instance name <iname> to the front of the Locator variables:

Table 2–5 Locator Variables

Current Value	New Value
OracleDiscovererPreference3.3	<iname>OracleDiscovererPreference3.3
OracleDiscovererLocator3.3	<iname>OracleDiscovererLocator3.3

For example, the following is the original code in the file:

```
vbj oracle.disco.locator.Locator -preference  
OracleDiscovererPreferences3.3 -locator  
OracleDiscovererLocator3.3
```

If the instance name is 3iv, edit the file as follows:

```
vbj oracle.disco.locator.Locator -preference  
3ivOracleDiscovererPreferences3.3 -locator  
3ivOracleDiscovererLocator3.3
```

6. Run the following command:

```
osagent -p 14000&
```

to start the VisiBroker SmartAgent.

The VisiBroker SmartAgent must be running before you can activate the Locator component. You can start the SmartAgent from any directory because the path for osagent was added to the environment path when the VisiBroker files for Java 3.4 were installed earlier. An “&” at the end of the command is optional, but is recommended because the SmartAgent must be running whenever the Locator is running.

7. While still in the <dis_root>/disco3iv/DISCWB33/ directory, start the Locator component with the following command:

```
start_locator&
```

The “&” is optional but is also recommended.

You can now delete the temporary installation files located in <temp>.

To complete the installation see Section 2.3.1.3.2, “To Install the Discoverer Server Components on the Master Discoverer Server”.

Note: The Locator component must be running for Oracle Discoverer 3i Viewer Edition to function. Make sure that all current recovery and maintenance scripts that may restart the system or in some other way stop the Locator process take the Locator process into account.

2.3.1.3.5 To Install the Discoverer Software on an HTTP Server Not Running Windows NT or Solaris

If you are already running Discoverer Server services for this or any other Discoverer product, they must be shut down before continuing. To do this select 'Services' from the Control Panel and stop the service "OracleDiscoverer3i".

In this configuration the Locator component runs on a Windows NT machine, which can be one of the Discoverer Servers. You must first install the Discoverer 3i Viewer Edition component on a Windows NT machine, and then copy (or FTP) the files and downloadables to the non-NT machine. After the files are on the non-NT HTTP server, you install the Locator on a Windows NT machine that will run a Discoverer session. The Discoverer 3i Viewer Edition component can then be deinstalled from the Windows NT machine later if not required.

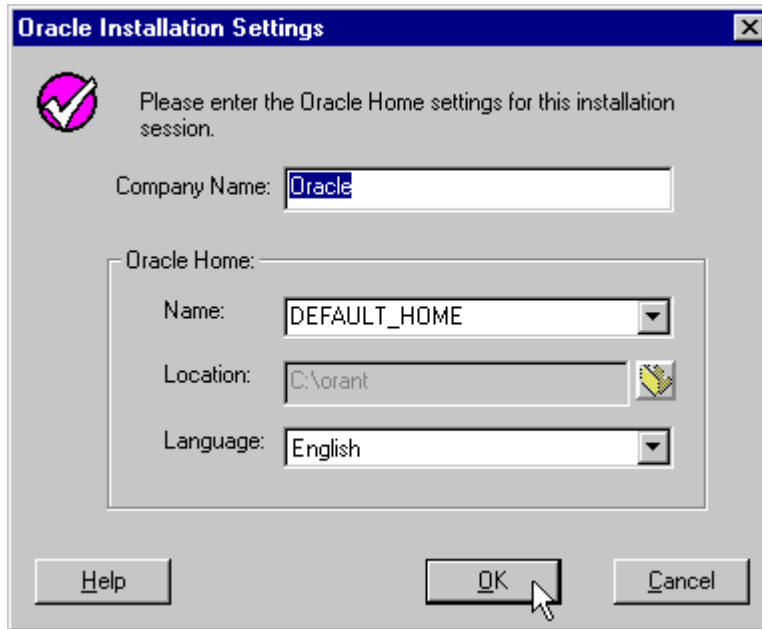
1. To install the Oracle Discoverer 3i Viewer Edition component on a Windows NT machine, follow the steps in Section 2.3.1.3.1, "To Install the Oracle Discoverer 3i Viewer Edition Servlet on an HTTP Server Running Windows NT" (when you have completed the steps in Section 2.3.1.3.1, do **not** move on to Section 2.3.1.3.2 but return to this section).
2. Locate the Viewer Edition component files (e.g. in D:\disco3ivhome) and copy (or FTP) the \disco3ivhome directory and its contents to a directory on the non-NT machine that you will be using for the HTTP server (e.g. /usr/local/disco3ivhome).
3. Locate the Visibroker component files vbjorb.jar and vbjapp.jar (e.g. in D:\<oracle_home>\vbroker\lib) and copy (or FTP) these files to a directory on the non-NT machine that you will be using for the HTTP server (e.g. /usr/local/vbroker/lib).

You will need the above Visibroker files when configuring the servlet engine.

The rest of this section describes how to install the Locator component. If you want to run the Locator on the same Windows NT machine as in step 1, the Locator component is already installed. You can therefore ignore the rest of this section and go straight to Section 2.3.1.3.2, "To Install the Discoverer Server Components on the Master Discoverer Server".

4. To install the Locator component insert the Oracle Discoverer 3i Viewer Edition CD into the Windows NT machine that will host the Locator component.

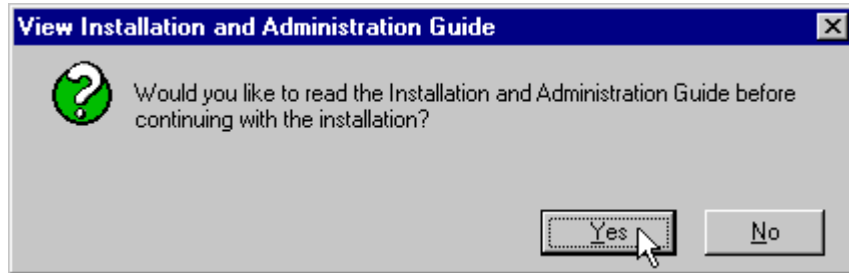
The Oracle Installation Settings dialog box opens.



5. Type or choose the following information and click OK:

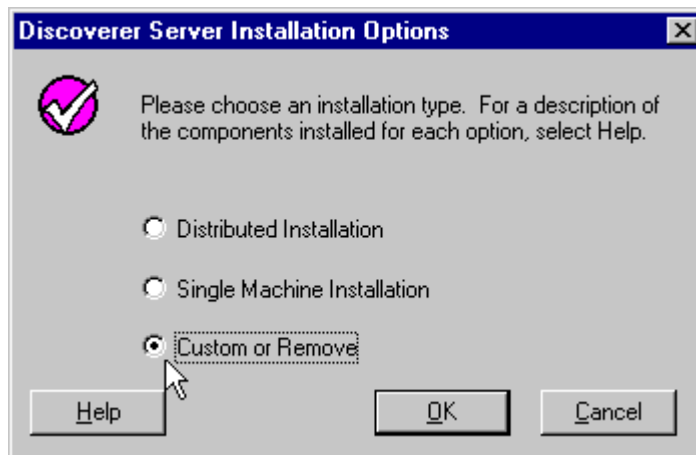
- Company Name—Your company's name
- Name—Select [DEFAULT_HOME] for Discoverer Server 3.3.
- Location—Select the path for [DEFAULT_HOME]. If you previously installed products into the DEFAULT_HOME, you will not be able to modify this directory.
- Language—The language used on this server.

The View Installation and Administration Guide dialog appears.



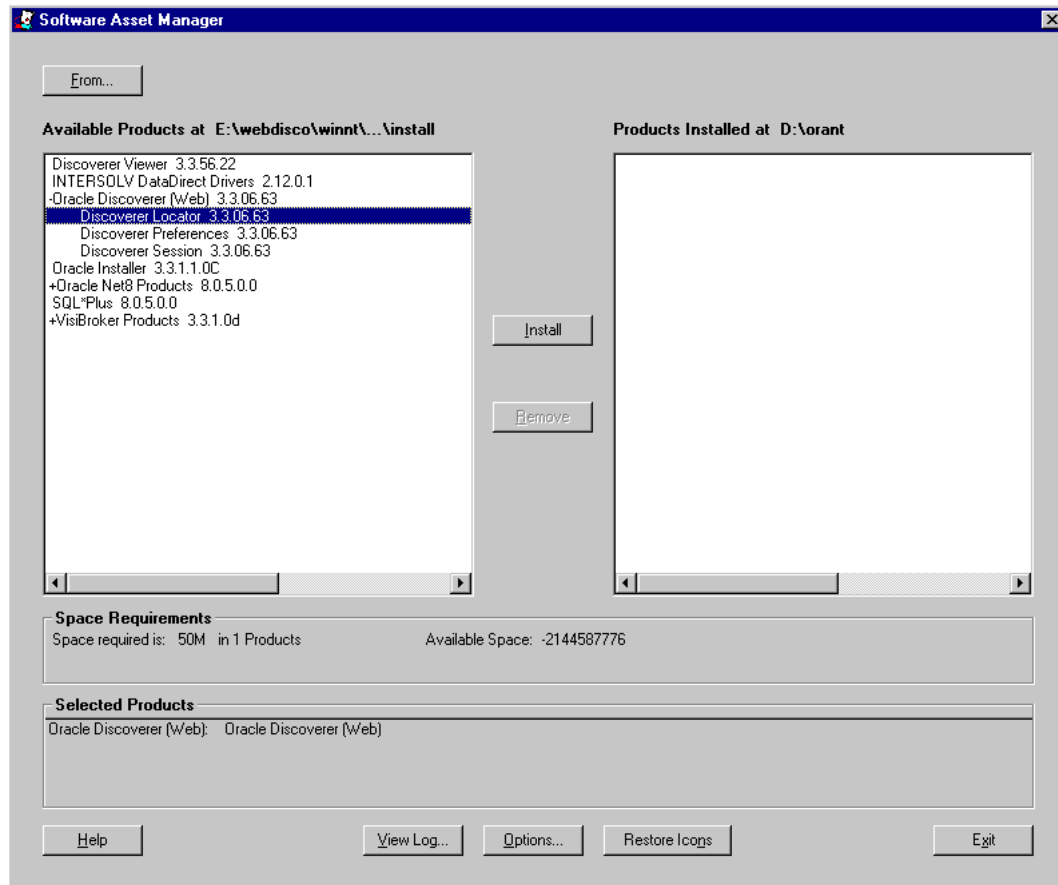
6. Before continuing with the installation, click Yes to view the Discoverer 3i Viewer Installation and Administration Guide. Your computer's default Web browser opens and displays the Installation Guide's table of contents. View online or print out the Installation Guide.

When you return to the Oracle Installer, the Discoverer Server Installation Options dialog appears.



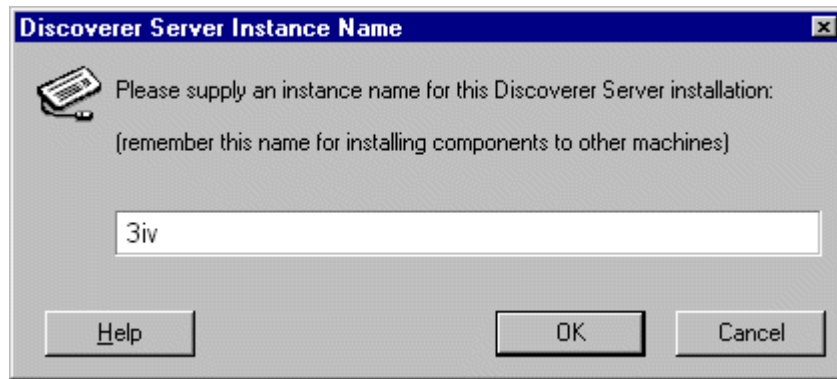
7. Select Custom or Remove and click OK.

The Software Asset Manager appears.



8. Double-click on the Oracle Discoverer (Web) component to expand it.
9. Select the Discoverer Locator Component and click the Install button.

The Discoverer Server Instance Name dialog box opens.

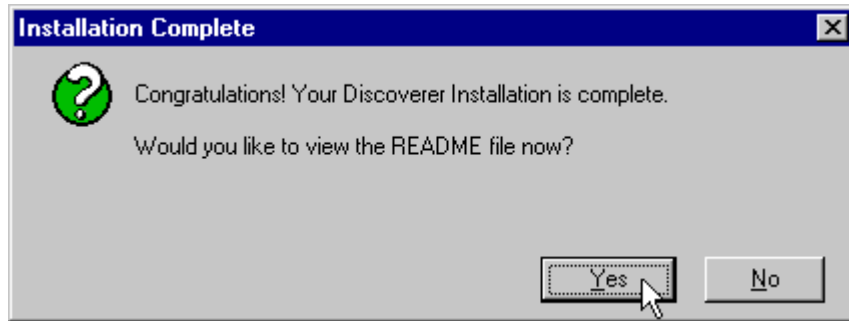


If you do not accept the default value in the example above, write down the name you entered here as it will be needed later in the installation.

-
10. Type the same Instance name that you entered for the HTTP server. Click OK.

Note: It is very important that you set the same Instance name on all the machines that will be running sessions. This name is used in the .XML file configuration, (See Section 2.3.4.4, “Oracle Discoverer 3i Viewer Edition .XML File Configuration”).

Installation begins. When the installation is finished, the Installation Complete message appears.



11. The installer returns to the Software Asset Manager.

12. Exit the Installer.

Installation creates and installs an NT Service named “OracleDiscoverer3i” which automatically loads and starts the Locator and CORBA services. To stop and restart this service from the Windows Start menu, select Setting | Control Panel | Services.

You are now ready to install (i.e. on the NT machine) the Discoverer software on the Master Discoverer Server and on Other Discoverer Servers. See Section 2.3.1.3.2, “To Install the Discoverer Server Components on the Master Discoverer Server” and Section 2.3.1.3.3, “To Install Discoverer Server Components on Additional Machines”.

2.3.1.4 Installing Oracle Discoverer 3i Viewer Edition Component and Master Server on a Single Machine

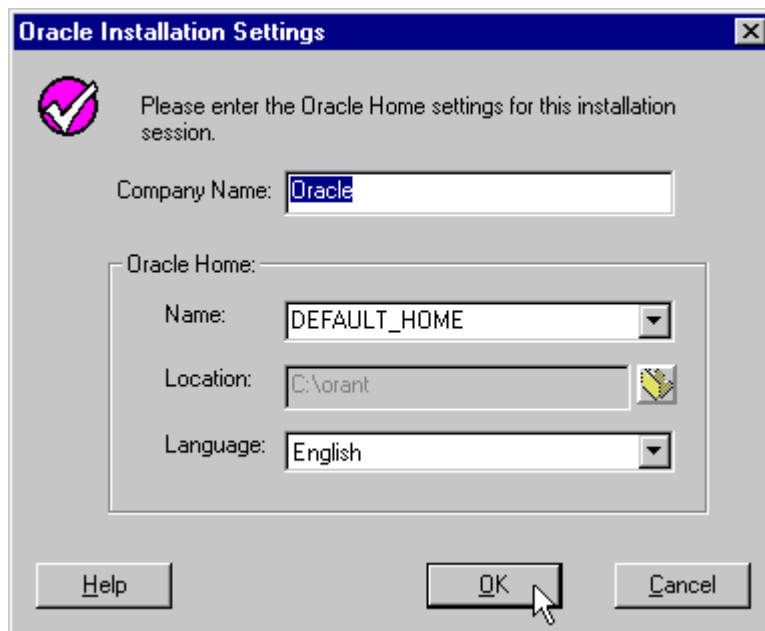
If you are already running Discoverer Server services for this or any other Discoverer product, they must be shut down before continuing. To do this select ‘Services’ from the Control Panel and stop the service “OracleDiscoverer3i”.

If you already have Oracle Discoverer 3i Server installed then go to Section 2.3.1.5, “Custom Installation”.

A single machine installation must be on a Windows NT 4.0 machine with an HTTP server.

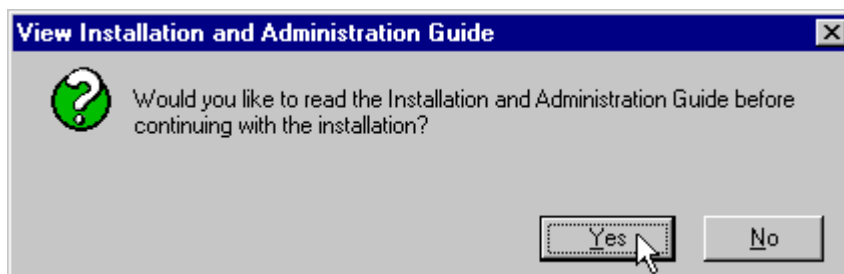
1. Insert the Oracle Discoverer 3i Viewer Edition CD. The Oracle Installer starts. If the Installer does not start, double-click Setup.exe in the root directory on the CD.

The Oracle Installation Settings dialog box opens.



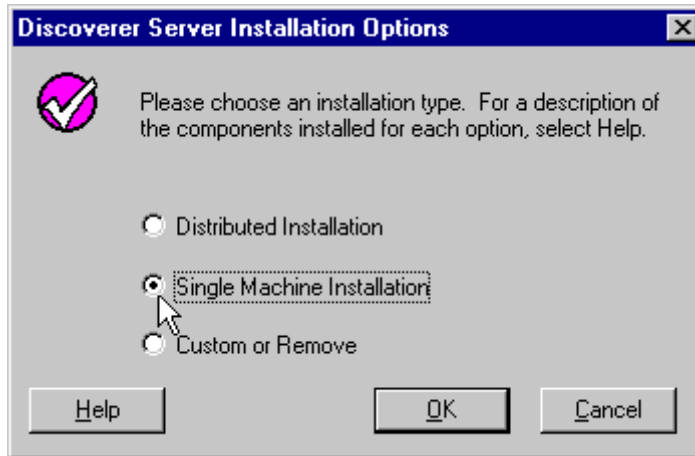
2. Type or choose the following information and click OK.
 - Company Name—Your company's name
 - Name—Select [DEFAULT_HOME] for Discoverer 3i.
 - Location—Select the path for [DEFAULT_HOME]. If you previously installed products into the DEFAULT_HOME, you will not be able to modify this directory.
 - Language—The language used on this server.

The View Installation and Administration Guide dialog appears.



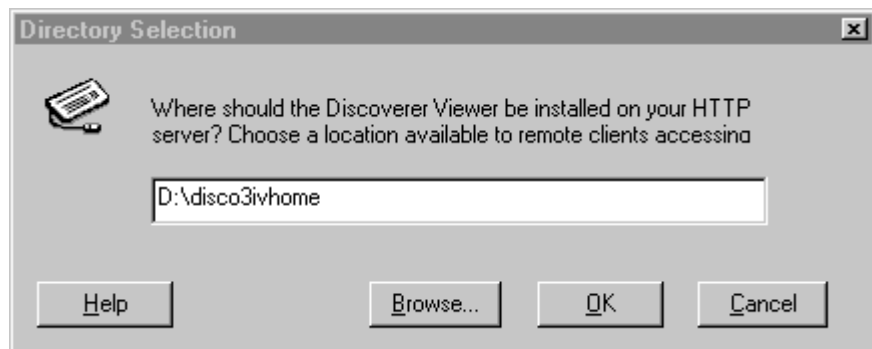
- Before continuing with the installation, click Yes to view the Discoverer 3i Viewer Installation and Administration Guide. Your computer's default Web browser opens and displays the Installation Guide's table of contents. View online or print out the Installation Guide.

When you return to the Oracle Installer, the Discoverer Server Installation Options dialog appears.



- Click Single Machine Installation and click OK.

The Directory Selection dialog box opens.



Type or browse to a directory name where you want to install the Oracle Discoverer 3i Viewer Edition component files. These files include the Oracle Discoverer 3i Viewer Edition servlet, Help, Docs and Images used to generate output pages displayed on a

client machine on input of a URL by a user.

This directory will be referred to as **disco3ivhome** in later sections of the installation. It is recommended that you call the directory disco3ivhome.

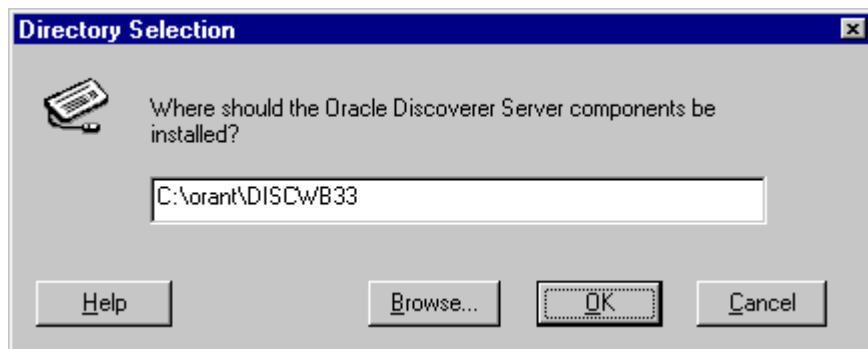
For example, type D:\disco3ivhome

Note: In a situation where Oracle Discoverer 3i User Edition is already installed, Oracle Discoverer 3i Viewer Edition can, if needed, be installed to an additional HTTP server. This may be necessary where the existing HTTP server does **not** have its own servlet engine. In this case an alternative HTTP server (with its own Servlet engine) can be installed on another machine and Oracle Discoverer 3i Viewer Edition can then be installed to that HTTP server, in this case both Oracle Discoverer 3i User Edition and 3i Viewer Edition can be run on the same installation.

Note: If you don't install the Oracle Discoverer 3i Viewer Edition files in the root or primary directory, you must create a virtual directory alias or URL prefix and map it to this directory. Please see your HTTP server documentation for more information.

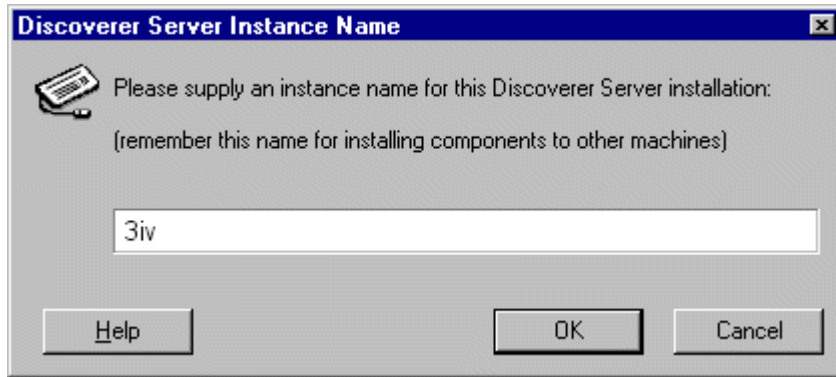
5. Click OK.

The Directory Selection dialog box opens. It shows the default Oracle home directory under your DEFAULT_HOME directory. You can choose another directory if you want.



6. Click OK.

The Discoverer Server Instance Name dialog box opens.



If you do not accept the default value in the example above, write down the name you entered here as it will be needed later in the installation.

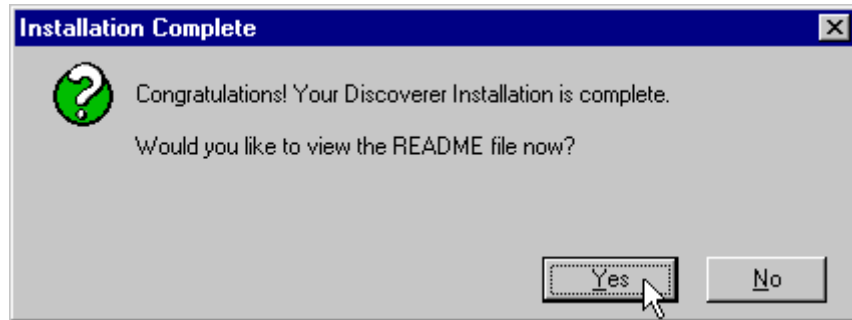
Note: The Instance name is prepended to the name strings that identify the Discoverer components (Locator, Preferences, and Session). For example, in the sample shown above, the batch file that registers Discoverer Preferences creates the name, 3ivOracleDiscovererPreferences33. This ensures that each instance of Discoverer Server on the network refers to its own components.

7. Type a name for the instance and click OK.

You may need this Instance name if installing the Discoverer Server components on other machines later, so you may want to write it down. This name is used in the .XML

file configuration, (See Section 2.3.4.4, “Oracle Discoverer 3i Viewer Edition .XML File Configuration”).

Installation begins. All of the necessary files are installed on the machine. When the installation is finished, the Installation Complete message appears.



8. Click Yes to read the README file. It contains late-breaking information about Oracle Discoverer 3i Viewer Edition that may affect your servers and users.
9. When you're finished with the README file, close it.

All the Discoverer 3i Viewer Edition components are installed and registered on the server. Installation creates and installs an automatic NT Service named “OracleDiscoverer3i” that loads and starts the Locator component and CORBA services. To stop and restart this service from the Windows Start menu, select Setting | Control Panel | Services.

You do not need to register the Preferences and Session components with the Locator because the OracleDiscoverer3i service automatically does this for you. However, if for any reason your components are not properly registered with the Locator, see Section 2.3.4.3, “Registering Server Components”.

If the database is on the same machine, continue with Section 2.3.4.4, “Oracle Discoverer 3i Viewer Edition .XML File Configuration”.

If the database is on a different machine, you will need to add an entry to the tnsnames.ora file (for more information, see Section 2.3.4.2, “Editing the tnsnames.ora Files”). When you have modified the tnsnames.ora file, continue with Section 2.3.4.4, “Oracle Discoverer 3i Viewer Edition .XML File Configuration”

2.3.1.5 Custom Installation

If you are already running Discoverer Server services for this or any other Discoverer product, they must be shut down before continuing. To do this select ‘Services’ from the Control Panel and stop the service “OracleDiscoverer3i”.

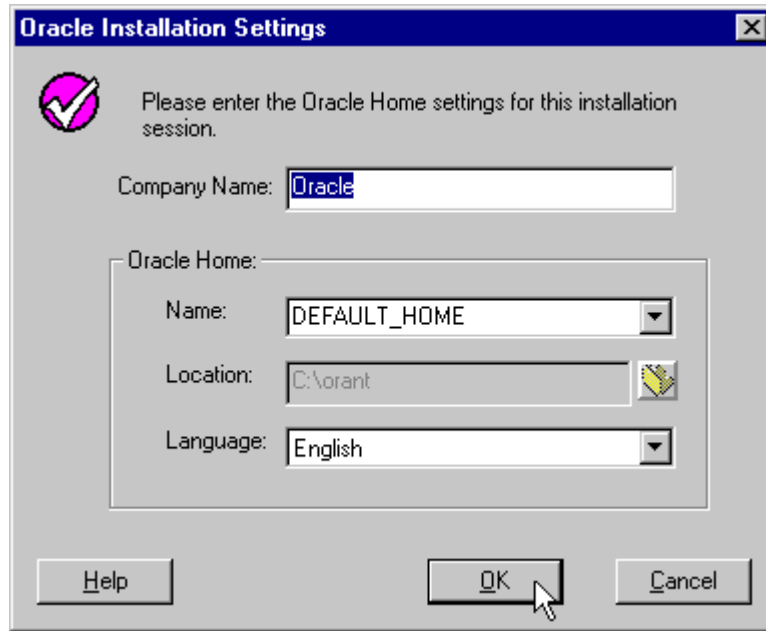
If you already have Oracle Discoverer 3i server installed, you will need only install the Oracle Discoverer 3i Viewer Edition component.

Use the Custom Installation option to install the Oracle Discoverer 3i Viewer Edition component if you have previously installed the Discoverer Server distributed on multiple machines. However, the same server requirements apply as with a distributed installation:

- The HTTP server can be a Windows NT 4.0 server or UNIX server, but the Master Discoverer Server and any additional servers must be Windows NT 4.0 servers. If the HTTP server is not a Windows NT 4.0 server, install the Discoverer Server on a Windows NT 4.0 server, then send the installed files via FTP to the UNIX server.
- The Oracle Discoverer 3i Viewer Edition component must be installed on the same machine as the HTTP Server and the servlet engine. The Discoverer Locator must be installed on a Windows NT or Solaris machine.
- There can be only one Preferences component and one Locator component for each instance of Discoverer 3i on a subnet. There can be many Discoverer Sessions components.
- Each machine being used to run sessions must have a Discoverer Session component installed.

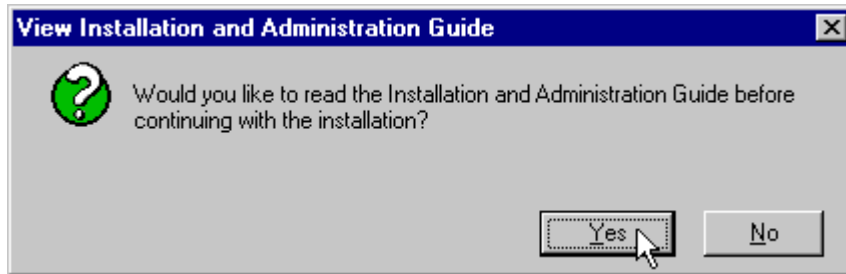
1. Insert the Oracle Discoverer 3i Viewer Edition CD. The Oracle Installer starts. If the Installer does not start, double-click Setup.exe in the root directory on the CD.

The Oracle Installation Settings dialog box opens.



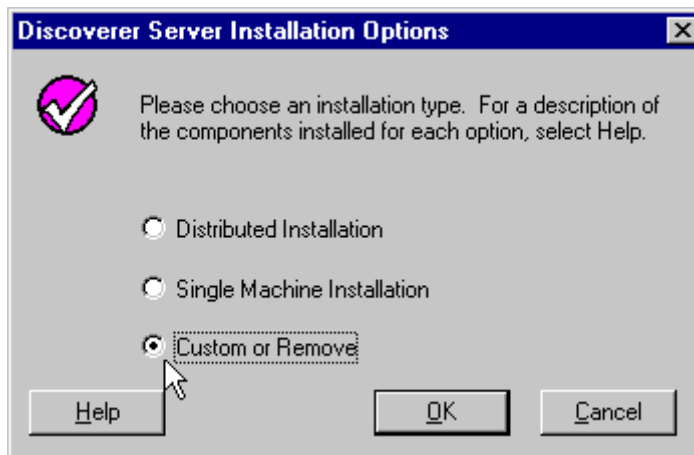
2. Type or choose the following information and then click OK.
 - Company Name—Your company's name
 - Name—Select [DEFAULT_HOME] for Discoverer Server 3.3.
 - Location—Select the path for [DEFAULT_HOME]. If you previously installed products into the DEFAULT_HOME, you will not be able to modify this directory.
 - Language—The language used on this server.

The View Installation and Administration Guide dialog appears.



3. Before continuing with the installation, click Yes to view the Discoverer 3i Viewer Installation and Administration Guide. Your computer's default Web browser opens and displays the Installation Guide's table of contents. View online or print out the Installation Guide.

When you return to the Oracle Installer, the Discoverer Server Installation Options dialog appears.



4. Click Custom or Remove and then click OK.

The Software Asset Manager appears.

5. Double-click the Oracle Discoverer (Web) item in the Available Products list to display the list of individual components. Click to select the items that you want to install.
6. Click Install.
7. In the Directory Selection dialog box, verify the directory where you want the component installed and click OK.

- 8.** Repeat for each component that you want to install on the current machine.

To complete the installation see Section 2.3.4.4, “Oracle Discoverer 3i Viewer Edition .XML File Configuration”.

2.3.2 The Installed Directories

Table 2-6, shows the directories installed for the HTTP server and the Discoverer Master server: -

Table 2–6

HTTP Server Directories	Discoverer Master Server Directories
Root/Alias	Oracle_Home
\disco3iv	\Discwb33
\html	\classes
\help	\util
\images	
\doc	

The directory, Discwb33, on the Discoverer Master Server contains the dlls and binary files for the Preference and Session components.

- disco3iv—the Oracle Discoverer 3i Viewer Edition .jar and readme files
 - html—the disco3iv.XML configuration file and .XSL stylesheet files
 - * help—the html help files accessible while using Oracle Discoverer 3i Viewer Edition
 - * images—the images used by the user interface and help pages
 - doc—the html files for the Oracle Discoverer 3i Viewer Edition Installation and Administration Guide
- Discwb33
 - classes—the archive classes for the Locator component
 - util—A set of batch files for registering and unregistering components

2.3.2.1 The Executables

The executable files for the Discoverer Server components are located in the directory, <Oracle_Home>\Discwb33. The executables are:

- Session—dis33ws.exe
- Preferences—dis33pr.exe

The executable `dis33srv.exe` launches the `OracleDiscoverer3i` service.

The Locator component produces the `Locator.ior` file.

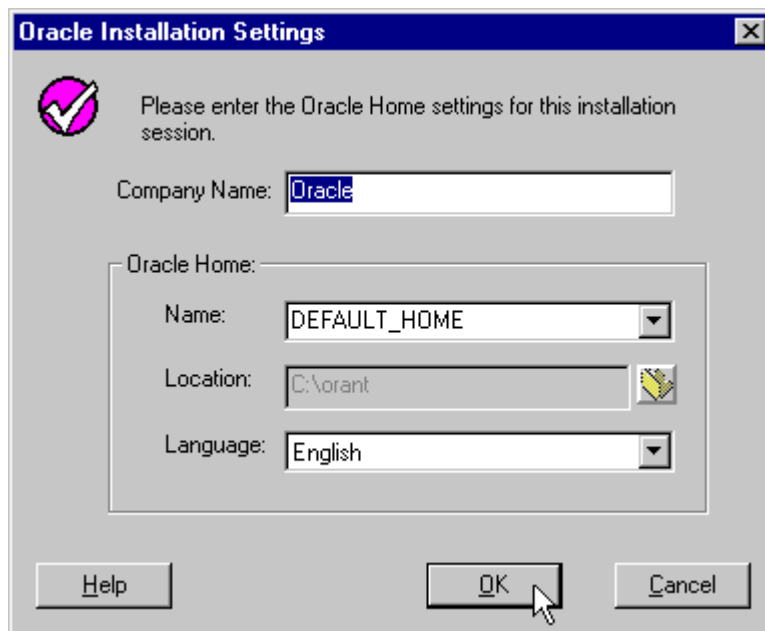
2.3.3 Removing Discoverer Server Components

If you are already running Discoverer Server services for this or any other Discoverer product, they must be shut down before continuing. To do this select 'Services' from the Control Panel and stop the service "OracleDiscoverer3i".

You can remove some or all of the Discoverer Server components from each machine.

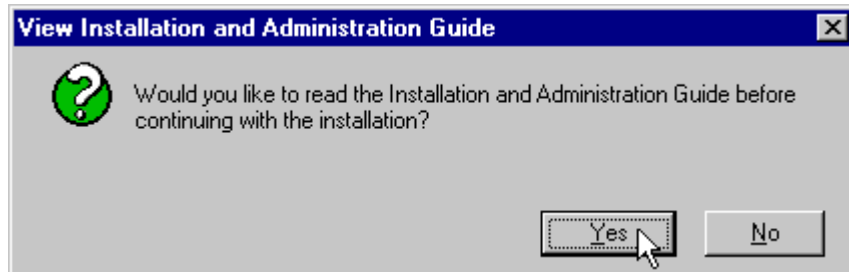
1. Insert the Oracle Discoverer 3i Viewer Edition CD into the machine from which you want to remove components. The Oracle Installer starts. If the Installer does not start, double-click Setup.exe in the root directory on the CD.

The Oracle Installation Settings dialog box opens.



2. Type or choose the following information and then click OK.
 - Company Name—Your company's name
 - Name—Select [DEFAULT_HOME] for Discoverer 3i Server.
 - Location—Select the path for [DEFAULT_HOME]. If you previously installed products into the DEFAULT_HOME, you will not be able to modify this directory.
 - Language—The language used on this server.

The View Installation and Administration Guide dialog appears.



3. Before continuing with the removal, click Yes to view the Discoverer 3i Viewer Installation and Administration Guide. Your computer's default Web browser opens and displays the Installation Guide's table of contents. View online or print out the Installation Guide.

When you return to the Oracle Installer, the Discoverer Server Installation Options dialog appears.



4. Click Custom or Remove and then click OK.
The Software Asset Manager appears.
5. In the list of products installed on the machine, select those that you want to remove. Shift-click to select multiple components.
6. Click Remove.

7. In the message dialog box that appears, verify the components are the proper ones to remove and then click OK.

2.3.4 Additional Discoverer Server configuration tasks

There are a number of additional configuration tasks that you might have to perform. Depending on how you have installed Discoverer, some of these tasks are optional and some of them are mandatory. Use the following table to decide which tasks to perform and the suggested sequence in which to perform them.

Seq	Task	Required when	Go to this section
1	Edit Discoverer Server preferences	Required when performing a distributed install	Section 2.3.4.1
2	Edit tnsnames.ora file	Required if the database is on a different machine	Section 2.3.4.2
3	Register server components	Only required if for any reason the server components have not been properly registered with the Locator during installation.	Section 2.3.4.3
4	Edit the disco3iv.xml file	Always required	Section 2.3.4.4

2.3.4.1 Editing the Discoverer Server Preferences

The Discoverer Preferences component is located on the Master Discoverer Server for a distributed install, and on the HTTP server (the only machine) for a single machine install.

The Preferences must contain either the IP address or machine name of each machine that will run Discoverer 3i sessions. However, the order of the IP addresses listed in the Preferences determines the order in which sessions are started on each machine that has a Session component installed. Therefore, you can effectively balance the load placed on the servers by listing the machines in a particular order.

This section contains the following topics:

- Examples of Load Balancing
- To Edit the Preferences File

2.3.4.1.1 Examples of Load Balancing

The Locator uses the list of IP addresses or machine names in the Preferences based on the round-robin method to determine which machine starts the next requested session. The Locator requests a session on each machine, in order, until it reaches the end of the list of IP

addresses. When the Locator reaches the end of the list, it returns to the beginning of the list and starts over.

Consequently, to determine the machine to start the first session, second session, third session, and so on, you should consider the speed and performance of each server machine. For planning purposes, you can estimate that each session requires approximately 3.8 to 18 MB of memory.

For example, you may also want one machine to handle five sessions before the next machine is used. If so, you type the first machine's IP address five times before the next machine's address.

Because load balancing can greatly affect performance, we recommend you plan the balancing before editing the Preferences file.

Example #1 Load balancing - equal machines

You have Discoverer Sessions installed on two Application servers. Each machine has the same processor speed and RAM. The IP addresses for these two machines are:

Table 2-7 Sample Server Names

Server	Name	IP address
Application Server #1	disco1	123.456.789.1
Application Server #2	disco2	123.456.789.2

You want Application server #1 to handle the first request, Application server #2 to handle the next, Application server #1 the next, and so on.

The Preferences file entry would look like this:

Machine IPs="disco1, disco2"

or

Machine IPs="123.456.789.1, 123.456.789.2"

Entries in the Preferences file are comma space delimited (i.e. entries are separated by a comma followed by a space). Enclose the entries in "double quotes."

Note: Using IP addresses is somewhat faster because using machine names requires one extra lookup. See your System administrator for details about using IP addresses versus machine names.

Example #2 Load balancing - one fast machine plus two other machines

You have Discoverer Sessions installed on three Application servers. The first Application server has faster processors and more RAM. The second and third Application servers are equal to each other in processor speed and RAM.

The IP addresses for these three machines are:

Table 2–8 Sample Server Names

Server	Name	IP address
Application Server #1	serve1	123.456.789.1
Application Server #2	serve2	123.456.789.2
Application Server #3	serve3	123.456.789.3

You want Application server #1 to handle the first three requests, Application server #2 to handle next one, Application server #3 the next one, then back to Application sever #1 for the next three requests.

The Preferences file entry would look like this:

```
Machine IPs="serve1, serve1,serve1, serve2, serve3"
```

or

```
Machine IPs="123.456.789.1,123.456.789.1,123.456.789.1, 123.456.789.2,
123.456.789.3"
```

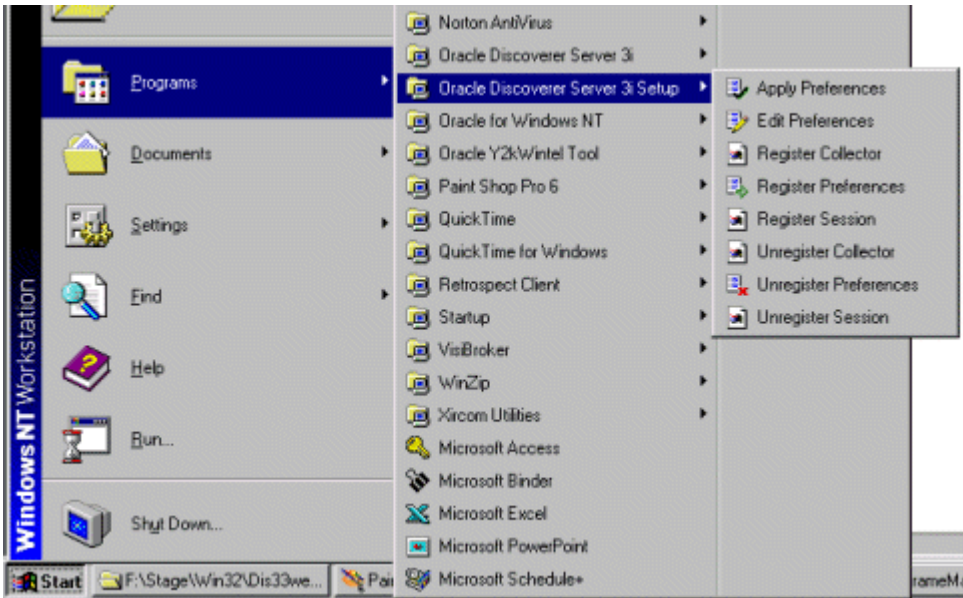
2.3.4.1.2 To Edit the Preferences File

The only information required in the Preferences file is the IP addresses or machine names of the servers used for Discoverer 3i. The other items in the Preferences file can be edited to suit your network or user requirements. See Section 3.3, “Editing the End User Preferences” for more information.

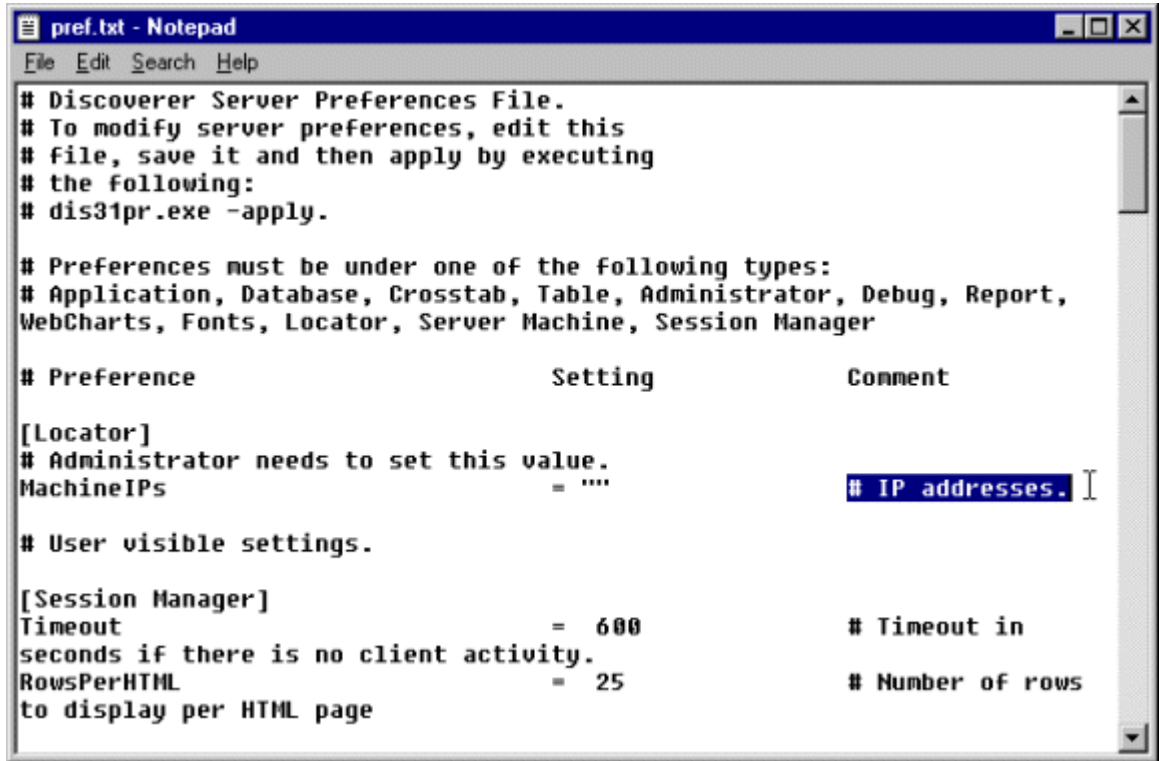
The Preferences file is named Prefs.txt. A backup copy of Prefs.txt is located at <orahome>\Discwb33\util\defaults.txt (or at the location where you installed the Master Discoverer Server, specifically, the Preferences component). If you make a mistake when editing, lose, or corrupt the Prefs.txt file, you can restore the file to its default values from the backup copy.

To edit the Preferences file, edit it on the machine where you installed the Preferences component:

- 1. From the Windows Start menu, choose Programs | Oracle Discoverer Server 3i Setup | Edit Preferences.



The file, Prefs.txt, opens in the Notepad application.



```

# Discoverer Server Preferences File.
# To modify server preferences, edit this
# file, save it and then apply by executing
# the following:
# dis31pr.exe -apply.

# Preferences must be under one of the following types:
# Application, Database, Crosstab, Table, Administrator, Debug, Report,
# WebCharts, Fonts, Locator, Server Machine, Session Manager

# Preference                Setting                Comment

[Locator]
# Administrator needs to set this value.
MachineIPs                  = ""                # IP addresses.

# User visible settings.

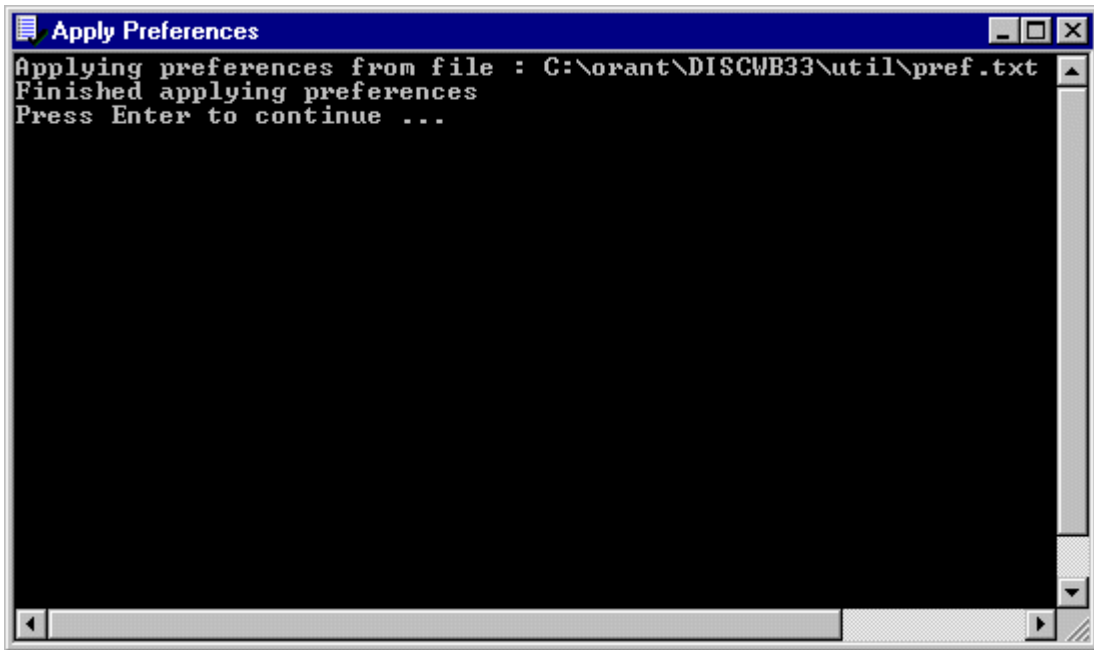
[Session Manager]
Timeout                     = 600                # Timeout in
seconds if there is no client activity.
RowsPerHTML                 = 25                # Number of rows
to display per HTML page

```

2. Type the IP address or machine name for each machine at the line labeled MachineIPs entry at the top of the file.
3. Separate the IP addresses or machine names by commas and enclose the entire list in "double quotes." For example: "server1, server2, server3".
4. When you're finished editing the Preferences file, save it and exit Notepad.

2.3.4.1.3 Apply Preferences From the Windows Start menu, choose Programs | Oracle Discoverer Server 3i Setup | Apply Preferences.

A confirmation window shows that the new preferences have been saved. If you suspect that the file contains errors, check the error.txt file in the current directory.



To continue, press any key.

The preferences are updated in the Windows NT Registry. Preferences are now set for the Discoverer Server Instance.

2.3.4.2 Editing the tnsnames.ora Files

The tnsnames.ora file should be *identical* on each machine that will run a session. The tnsnames.ora file contains the names and aliases of all the databases that users can access using Discoverer 3i or any other Oracle product. To make sure the tnsnames.ora file is correct, enter the SID(s) for each database in your tnsnames.ora file.

One way to edit the tnsanmes.ora file:

1. From the Windows Start menu, choose Programs | Oracle for Windows NT | Oracle Net8 Easy Config.

A program then runs so you can edit the Net8 configuration.

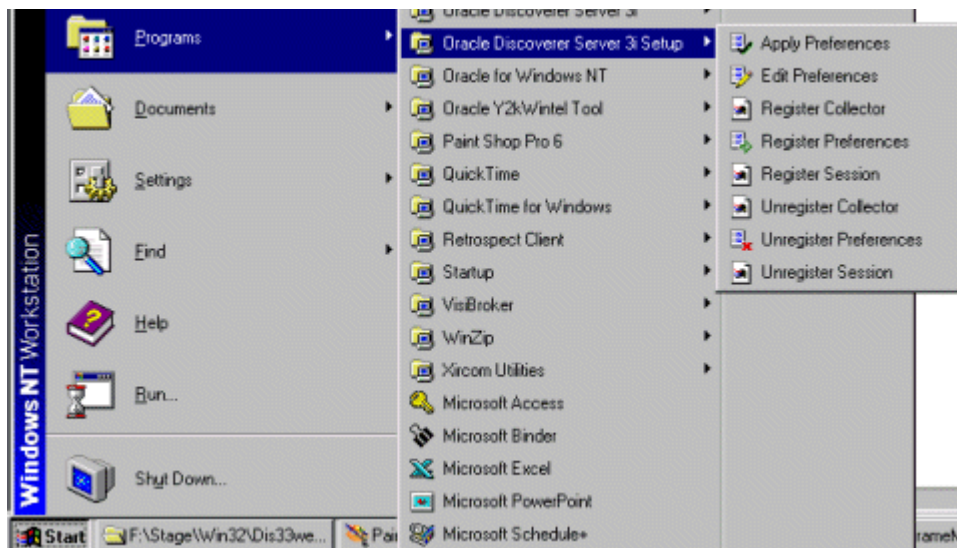
If the Discoverer Session component is installed on several machines, you can copy the correct tnsnames.ora file to the other machines.

2.3.4.3 Registering Server Components

For information on unregistering components or registering from the command line, see Section 3.4, “Registering and Unregistering components” .

To register the Session and Preferences components:

1. On the machine where you want to register or unregister components, go to the Windows Start menu and choose Programs | Oracle Discoverer Server 3i Setup.



2. Select Register Preferences.

A confirmation screen appears.

3. Select Register Sessions.

A confirmation screen appears.

4. Select Register Collector.

A confirmation screen appears.

2.3.4.4 Oracle Discoverer 3i Viewer Edition .XML File Configuration

If you used the default installation options with a single Oracle Discoverer Server instance called '3iv' then you do not need to edit this file.

If you have multiple Discoverer Servers or used a different name, then follow the instructions below.

The Oracle Discoverer 3i Viewer Edition Servlet component has one file that needs to be configured:

disco3iv.xml

Before editing this file, we strongly recommend you take a copy of the file for future reference.

When you have made the changes to the disco3iv.xml file, continue with Section 2.3.5, "Common Configuration".

2.3.4.4.1 Setting values to enable the Oracle Discoverer 3i Viewer to locate the Oracle Discoverer 3i server Oracle Discoverer 3i Viewer Edition needs to find the Oracle Discoverer 3i server, it does this using the *disco3iv.xml* file. Edit this file using Notepad.

You will need to set the correct Discoverer server instance name entered during installation. (See Section 2.3.1, "Installing Discoverer 3i Server and Servlet Software"). This value can be obtained from your administrator. This must be typed with correct capitalization, exactly as it was entered earlier. For single machine installs or for multiple machines on the same network subnet, this is the only change required.

For multiple machines that use a different subnet mask to the Discoverer Server (or when you are installing onto a non-NT HTTP server), you will need to edit a further section in this file to specify a different network submask.

If in doubt, edit the section assuming a different network subnet mask since this will work even if the computers actually have the same subnet mask.

The following excerpt is from the **D:\disco3ivhome\disco3iv\html\disco3iv.xml** file. The text that needs to be configured is indicated in the file:

```

<disco_config>
  <server>
    <!-- MAKE CHANGES HERE .... SAVE A COPY OF THIS FILE BEFORE EDITING

    If you used the default installation options with a single Discoverer Server instance called '3iv' then you do not
    need to edit this file.
    If you used a different Discoverer Server instance name, in the line below change '3iv' to be the name you entered
    for the Discoverer Server during installation
    Make sure you enter the EXACT name, with correct capitalization.
    E.g. If the instance name is MyInstance, then session name="MyInstanceOracleDiscovererSession3.3" -->
      <session name="3ivOracleDiscovererSession3.3">
    <!-- For single machine installs or multiple machines on the same subnet, only the step above is required.
    If Discoverer 3i Viewer is installed on multiple machines on a different subnet than the Discoverer 3i Server then
    follow the instructions below.

    1. Remove the 2 comment lines below marked 'REMOVE THIS COMMENT LINE (A)' and 'REMOVE THIS
    COMMENT LINE (B)'

    2. If you used a different Discoverer Server instance name instead of the default '3iv', change '3iv' to be the name
    you entered for the Discoverer Server during installation.
    Make sure you enter the EXACT name, with correct capitalization.
    E.g. If the instance name is MyInstance, then locator name="MyInstanceOracleDiscovererSession3.3"

    3. Change %LOCATOR_URL% to be the absolute URL ( including the trailing '/' ) for the file locator.ior in your
    Discoverer Server installation. You will need to locate where this file is installed using a file search.
    If the machine with this file on is not running a web server, you will need to copy the locator.ior file to your web
    server, and set the URL accordingly.
    E.g. path="http://Discoserver.company.com/orant/discwb33/Applet/"

    -->
    <!-- REMOVE THIS COMMENT LINE (A) only if Discoverer 3i Viewer is installed on a different subnet than the Dis-
    coverer 3i Server
      <locator name="3ivOracleDiscovererLocator3.3"
      path="http://%LOCATOR_URL%" >
    </locator>

    REMOVE THIS COMMENT LINE (B) only if Discoverer 3i Viewer is installed on a different subnet than the Discoverer
    3i Server -->
      </session>
    </server>
  <application auto_connect="false" apps_login="false" auto_open_worksheet="true" auto_open_eul="true" />
</document>
  <argument name="xsl_path" type="href">disco3iv.xsl</argument>
  <argument name="help_path" type="href">help</argument>

```

```
<argument name="image_path" type="href">images</argument>
<!-- To enable the inclusion of the Applications login check box on the connect dialog set the argument below to true -
-->
```

```
<argument name="show_login_method_control">true</argument>
</document>
</disco_config>
```

2.3.4.4.2 Specifying display of the Applications User Checkbox in Connect Dialog You can set up the Connect dialog to enable an Oracle Applications user to log on using an Applications ‘Responsibility’ by displaying the Applications User checkbox.

To set up the Connect dialog to display (or hide) the Applications User checkbox, access the configuration file located in **D:\disco3ivhome\disco3iv\html\disco3iv.xml** and set the "show_login_method_control" argument to true or false as required.

2.3.5 Common Configuration

This section highlights common aspects of configuration applying to naming conventions, web servers, servlet engines and the Java Virtual Machine(JVM).

When you have read this section, continue by configuring one of the following:

- Apache (for more information, see Section 2.3.6, “Configuring Apache Web Server and Servlet Engine”)
- Netscape Enterprise Server (for more information, see Section 2.3.7, “Configuring Netscape Enterprise Server 4.0 and Servlet Engine”)
- JRun (for more information, see Section 2.3.8, “Configuring JRun Servlet Engine”)
- Servlet Exed (for more information, see Section 2.3.9, “Configuring ServletExec 2.2c Servlet”)
- Oracle Application Server (OAS) (for more information, see Section 2.3.10, “Configuring Oracle Application Server”)

2.3.5.1 Naming preferences

Naming conventions may vary from machine to machine. The directories and machine names shown here may be different for your machine but are used in examples in the rest of this installation.

2.3.5.1.1 Oracle Home This is full path to the Oracle Home directory. We shall use the example **D:\orant**

2.3.5.1.2 Web Alias: This is the virtual path to the web server directory where the Discoverer 3i Viewer Edition component is installed. This can be any name you want. We shall use the example **disco3ivfiles**.

2.3.5.1.3 Discoverer 3i Viewer files location This is the physical directory where the directory **disco3iv** is installed. This was the directory chosen during the installation in response to the question “Where should the Discoverer Viewer be installed on your HTTP server?”. We will use the example **D:\disco3ivhome**

2.3.5.1.4 Web server machine This is the machine name that the HTTP server is installed on. You must include a fully qualified host name. We will use the example **mywebserver.company.com**

2.3.5.2 Common configuration for web servers

Certain items need to be configured the same regardless of which web server is used.

All the Web servers need to be configured so that a 'directory alias' maps to the installation directory for Oracle Discoverer 3i Viewer Edition.

2.3.5.3 Common configuration for servlet engines

Certain items need to be configured the same regardless of which servlet is used. This section describes them.

The naming conventions used vary depending on location and naming preferences.

2.3.5.3.1 Defining the name This means registering a name that will be used to invoke the servlet. For default purposes set this to *'discoservlet'*

2.3.5.3.2 Defining the classpath for the servlet code The servlet engine needs to know the name of the class that is used to start the servlet.

This is always *'oracle.disco3iv.Disco3iv'*

2.3.5.3.3 Defining the location of the servlet code Servlet engines differ in that some look in default directories whilst other can be pointed to an explicit class or .jar(Java Archive) file.

This will always refer to the *'disco3iv.jar'* file although the location of the file may differ.

2.3.5.3.4 Servlet parameters The servlet engine must be configured so that when the Discoverer servlet is launched a parameter is passed in.

The parameter name is *'config'* and its value is *'http://mywebserver.company.com/disco3ivfiles/html/disco3iv.xml'*

2.3.5.4 Information required by the Java Virtual Machine(JVM)

JVM's are referenced in Servlet engines and need to be configured in order to run smoothly.

2.3.5.4.1 JVM Classpath There are two extra .jar files that need to be added to the classpath for servlet engines.

These are *vbjorb.jar* and *vbjapp.jar*

Most servlet engines have a classpath setting option so that these can be appended to the classpath.

2.3.5.4.2 JVM parameters There are two parameters that need to be passed into the JVM, so that instead of using Sun's default ORB, Visibroker's ORB is used instead.

The parameters and their values are shown below:

```
org.omg.CORBA.ORBClass=com.visigenic.vbroker.orb.ORB  
org.omg.CORBA.ORBSingletonClass=com.visigenic.vbroker.orb.ORB
```

It is also recommended to increase the maximum Java heap size that the Java Virtual Machine(JVM) will use.

E.g. For Apache, add **-mx256m** to increase the memory to 256MB. (See Section 2.3.6.3.1, "Add the JVM parameters").

How these are passed in will vary from one Servlet Engine to another.

2.3.6 Configuring Apache Web Server and Servlet Engine

The recommended suite of software for use with Apache is:

- Apache Server 1.3.9
- JRE (Java Runtime Environment) 1.2
- JSDK (Java Servlet Development Kit) 2.0
- Apache JServ 1.0

Apache should be installed as a service on Windows NT to avoid problems closing the JVM when it is stopped and restarted as a console application.

To check your Apache Server is running use a web browser and enter the fully qualified machine name as the URL E.g.:

mywebserver.company.com

To check your Apache JServ is running, enter the following URL:

mywebserver.company.com/servlets/IsItWorking

On Solaris this should read:

mywebserver.company.com/example/Hello

You should verify that Apache Server and Apache JServ are running before continuing.

In the event of errors, check the Apache log files located in the directory:

On Windows NT this is Apache\logs and Apache JServ\logs

On Solaris this is in one location */usr/local/apache/logs*).

This section includes the following topics:

- Defining a directory alias for an Apache web server
- Editing zone.properties file of Apache JServe
- Editing jserv.properties file of JServe
- Running JServe

2.3.6.1 Defining a directory alias for an Apache web server

Edit the httpd.conf file in your Apache directory.

For example:

On **Windows NT** if D:\Apache was where you installed Apache then D:\Apache\conf directory is where you will find httpd.conf file.

On **Solaris** if /usr/local/apache was where you installed Apache then /usr/local/apache/conf directory is where you will find httpd.conf file

Add the following line in the 'Aliases' section:

For Windows NT

```
Alias /disco3ivfiles/ "D:/disco3ivhome/disco3iv/"
```

For Solaris

```
Alias /disco3ivfiles/ "/usr/local/disco3ivhome/disco3iv/"
```

Where disco3ivfiles can be any name you want and the directory in which the file disco3iv.jar is installed is:

For Windows NT: D:\disco3ivhome\disco3iv

For Solaris: /usr/local/disco3ivhome/disco3iv/

NOTE: Be sure to enter this line carefully, including the trailing slashes after each section.

Below is an excerpt from a httpd.conf file showing the above line inserted (for Windows NT).

```
# Aliases: Add here as many aliases as you need (with no limit). The format is
# Alias fakename realname
#
# Note that if you include a trailing / on fakename then the server will
# require it to be present in the URL.  So "/icons" isn't aliased in this
# example, only "/icons/".
#
Alias /icons/ "D:/apache/icons/"
Alias /disco3ivfiles/ "D:/disco3ivhome/disco3iv/"
```

NOTE: These are forward slashes not back slashes.

(For Solaris : Alias /icons/ "/usr/local/apache/icons")

(For Solaris : Alias /disco3ivfiles/ "/usr/local/disco3ivhome/disco3iv/")

2.3.6.1.1 Checking the directory alias

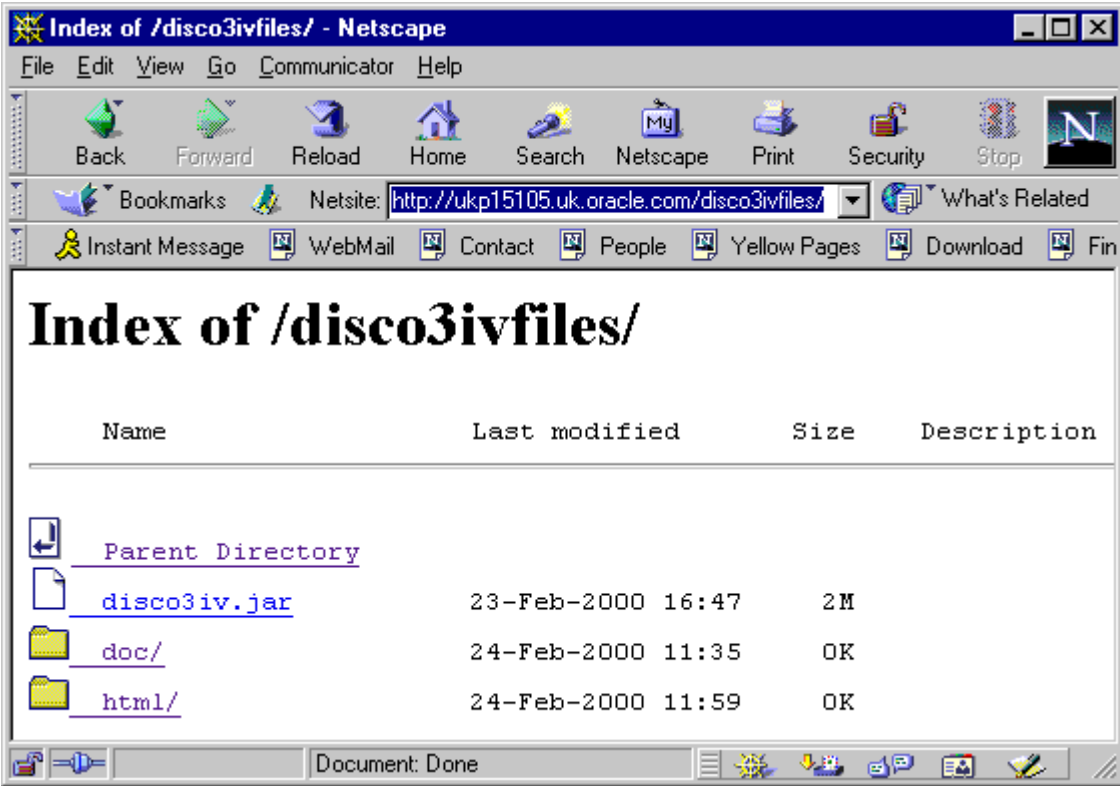
Stop and restart Apache.

Start a web browser and type **mywebserver.company.com/disco3ivfiles/**

Where **mywebserver.company.com/** is the machine name that the HTTP server is installed on.

You should see a directory with the disco3iv.jar file present as shown below.

NOTE: Make sure you append a '/' at the end of the address otherwise you will not see the contents of the directory.



The above image shows what you can expect to see.

2.3.6.2 Editing zone.properties file of Apache JServe

This can be found where you installed Apache JServ

2.3.6.2.1 Location of the zone.properties file If you installed Apache JServ in the \JServ directory (/usr/local/jerv on Solaris), the file will be in the \JServ\conf directory (/usr/local/jserv/conf on Solaris). If JServe is Version 1.1 or above, the zone.properties file will be found in the \JServ\servlets directory (Or /usr/local/jserv/servlets on Solaris).

2.3.6.2.2 Add the repository.

This means telling JServ where to find the disco3iv.jar file

Append the path for the file to the end of the ‘repositories’ line

E.g. Before appending line:

For Windows NT
 repositories=D:\JServ\servlets
For Solaris
 repositories=/usr/local/jserv/servlets (For Solaris)

After appending line:

For Windows NT:
 repositories=D:\JServ\servlets,**D:\disco3ivhome\disco3iv\disco3iv.jar**
 (where **D:\disco3ivhome\disco3iv** is the full path for disco3iv.jar)
For Solaris:
 repositories=/usr/local/jserv/servlets,/usr/local/disco3ivhome/disco3iv/
 disco3iv.jar
 (where /usr/local/disco3ivhome/disco3iv/ is the full path for disco3iv.jar)

2.3.6.2.3 Add the servlet to the startup servlets

Add the following line in the ‘Startup Servlets’ section

servlets.startup=discoservlet

2.3.6.2.4 Define a servlet alias for the servlet

Add the following line to the ‘Servlet Aliases’ section

servlet.discoservlet.code=oracle.disco3iv.Disco3iv

2.3.6.2.5 Define parameters for the servlet

Add the following line to the 'Aliased Servlet Init Parameters' section

```
servlet.discoservlet.initArgs=config=http://mywebserver.company.com/  
disco3ivfiles/html/disco3iv.xml
```

(Note: the above line must be a single unbroken line with no manual line break or carriage return)

Where mywebserver.company.com is the machine name that the HTTP Server is installed on. Remember to change this if you copy and paste this text.

2.3.6.3 Editing jserv.properties file of JServe

This can be found where you installed Apache JServ

eg If you installed Apache JServ in the \JServ directory (/usr/local/jserv for Solaris) the file can be found in the \JServ\conf sub directory(/usr/local/jserv/conf for Solaris).

2.3.6.3.1 Add the JVM parameters

Add the following line to the 'Arguments passed to Java interpreter (optional)' section

```
wrapper.bin.parameters=-Dorg.omg.CORBA.ORBClass=  
com.visigenic.vbroker.orb.ORB -Dorg.omg.CORBA.ORBSingletonClass=  
com.visigenic.vbroker.orb.ORB
```

*(Note: **There is a space between '.orb.ORB' and '-Dorg' above.** Also, the above line must be a single unbroken line with no manual line break or carriage return).*

(Note: It is also recommended to increase the maximum memory available to the JVM i.e. "wrapper.bin.parameters=-mx256m -Dorg.omg.CORBA.ORBClass=com.visigenic.vbroker.orb.ORB -Dorg.omg.CORBA.ORBSingletonClass=com.visigenic.vbroker.orb.ORB" to increase this to 256mbytes)

2.3.6.3.2 Add the ClassPath value

Add the following line to the 'CLASSPATH environment value passed to the JVM' section

For Windows NT:

wrapper.classpath=

D:\orant\vbroker\lib\vbjorb.jar;D:\orant\vbroker\lib\vbjapp.jar

Where **D:\orant** is the location of the Oracle Home directory. (NOTE: Also, the above line must be a single unbroken line with no manual line break or carriage return)

For Solaris:

wrapper.classpath=

/usr/local/vbroker/lib/vbjorb.jar;/usr/local/vbroker/lib/vbjapp.jar

Where **/usr/local/vbroker** is the directory where you installed Visibroker. (NOTE: Also, the above line must be a single unbroken line with no manual line break or carriage return)

2.3.6.4 Running JServe

For Windows NT:

1. Stop the Apache Web Server.
2. Wait ten seconds and restart the Apache Web Server.
3. Start a browser window and type the following:

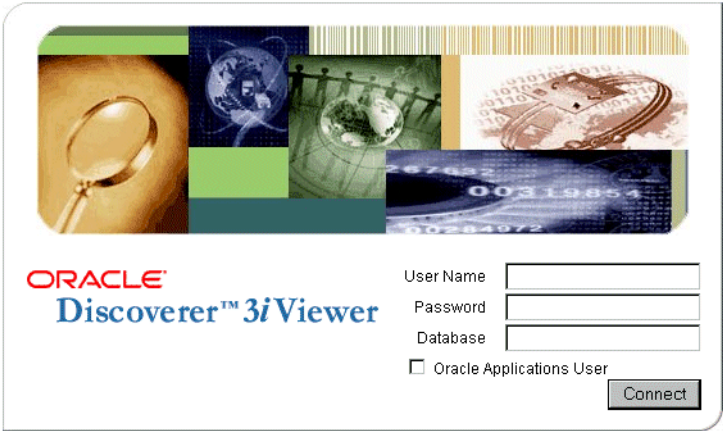
mywebserver.company.com/servlets/discoservlet

For Solaris:

1. Stop the Apache Web Server.
2. Restart the Apache Web Server.
3. Start a browser window and type the following:

mywebserver.company.com/servlets/discoservlet

This should start Oracle Discoverer 3i Viewer and you should see the login screen:



Your installation is now complete.

2.3.7 Configuring Netscape Enterprise Server 4.0 and Servlet Engine

This section includes the following topics:

- Defining a directory alias
- Configure NES servlet engine
- Editing the servlets.properties configuration file
- Editing the rules.properties configuration file
- Edit the jvm12.conf configuration file
- Edit the start-jre configuration file

NES4.0 has its own built in servlet engine. Use the following instructions to configure the servlet engine. Note that the instructions apply to both NT and Solaris unless specified otherwise.

2.3.7.1 Defining a directory alias

Start a browser and type the following:

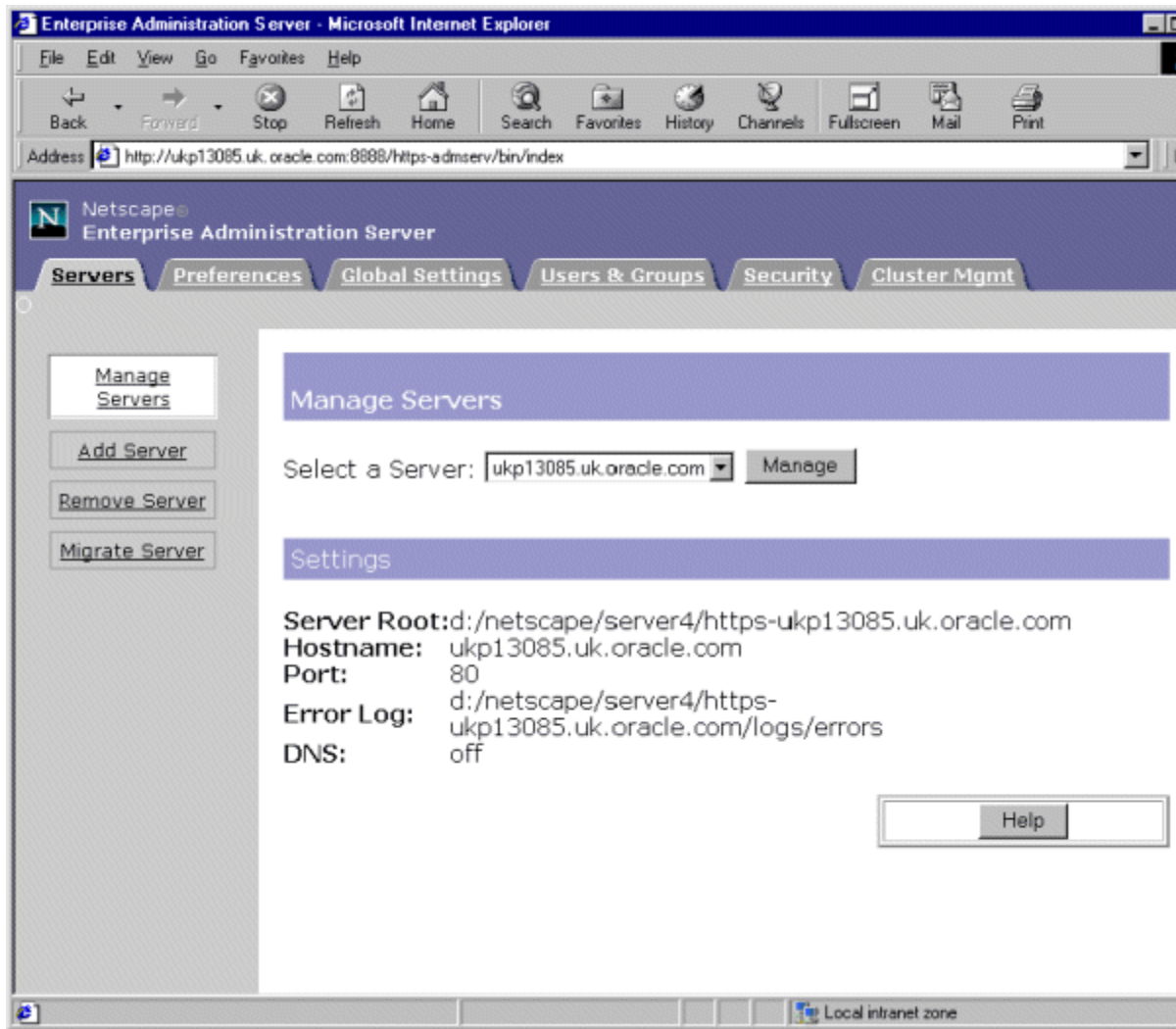
mywebserver.company.com:8888

Where **mywebserver.company.com** is the machine name the HTTP server is installed on.

You will get a login prompt.

Enter the user id and password (These were entered during the Netscape ES installation).

The default is admin for both user id and password.



Click the ‘Manage’ button in the above window.

Server 4.0 SP2 ukp15105.uk.oracle.com Server Manager

Programs Servlets Security Status Styles **Content Mgmt** Web Publishing

Additional Document Directories
Edit a Directory ([Add](#))

URL prefix:
http://ukp15105.uk.oracle.com/ disco3ivfiles

Map To Directory: d:/disco3ivhome/disco3iv

Apply Style: NONE

OK Reset

1. Select the 'Content Mgmt' tab from the above window.
2. Select the 'Additional Document Directories' option.
3. Enter '**disco3ivfiles**' as the 'URL prefix' value
4. Specify the 'Map to Directory:' value as follows:
 - (for NT) enter '**D:/disco3ivhome/disco3iv**' as the 'Map to Directory:' value
 - (for Solaris) enter '**/usr/local/disco3ivhome/disco3iv**' as the 'Map to Directory:' value
5. Leave 'Apply Style' as 'None'

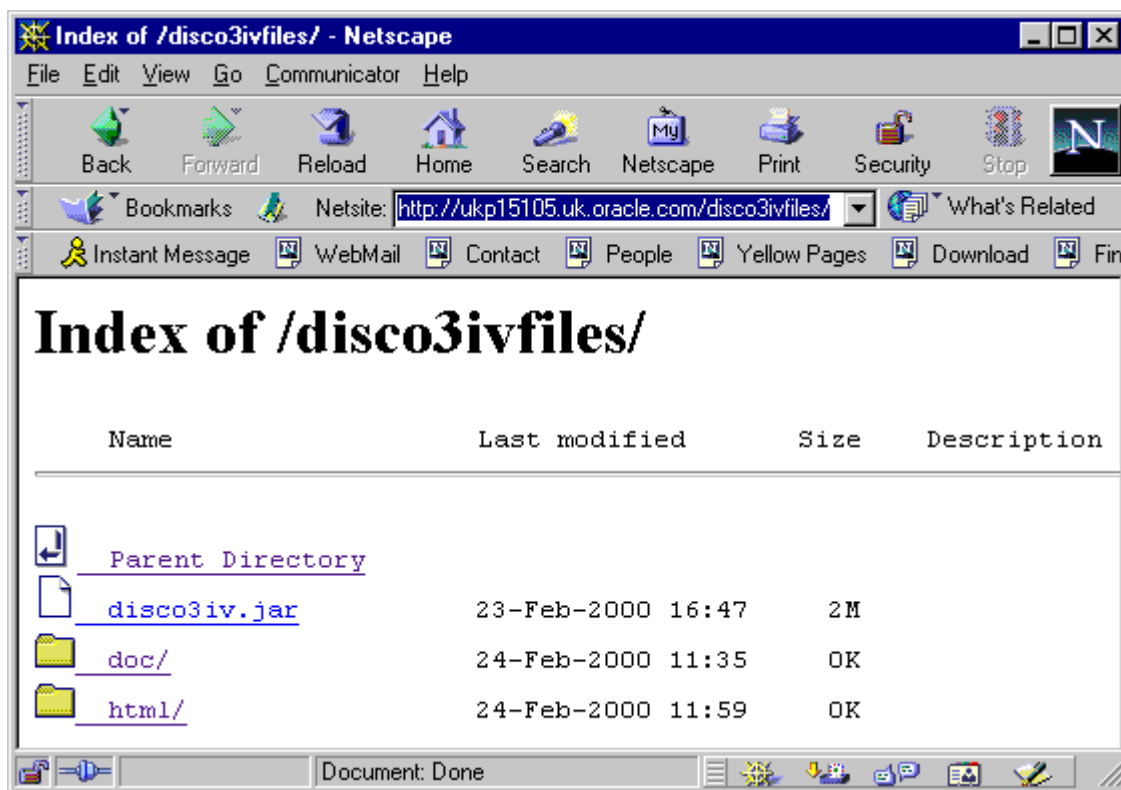
6. Click OK.
7. Click on the 'Save and Apply' option.

2.3.7.2 Checking the directory alias

Start a new browser and enter the following as a URL address:

mywebserver.company.com/disco3ivfiles/

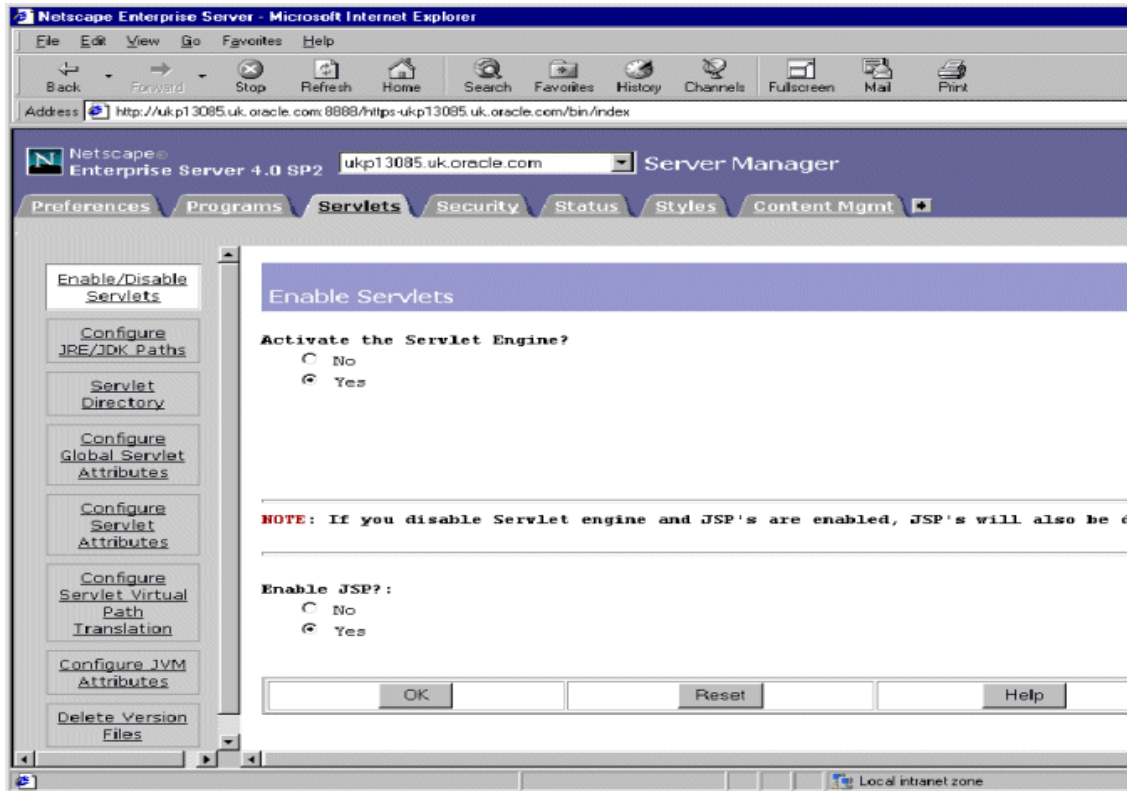
Where **mywebserver.company.com** is the machine name the HTTP server is installed on.



You should be presented with the above contents

2.3.7.3 Configure NES servlet engine

Start NES Admin and select the Servlets tab



Select the 'Enable/Disable Servlets' tab and ensure that the 'Activate the Servlet Engine' and 'Enable JSP?' options are set to 'Yes'.

1. Click on OK.
2. Click on the 'Save and Apply' changes button.
3. Select the 'Preferences' tab and click the Server Off button to stop the server.

2.3.7.4 Editing the servlets.properties configuration file

Edit the `servlets.properties` file.

This can be found in the NES installation directory. For example:

- (under NT) if you have installed NES to D:\Netscape\Server4 the file can be found in the D:\Netscape\Server4\https-mywebserver\config directory

- (under Solaris) if you have installed NES to /usr/local/netscape/server4 the file can be found in the /usr/local/netscape/server4/https-**mywebserver**/config directory

where **mywebserver** is the name of the machine the Server has been installed on.

Append three lines to the end of the file as follows:

- for NT, append the following three lines:

```
servlet.discoservlet.classpath=D:/disco3ivhome/disco3iv/disco3iv.jar  
servlet.discoservlet.code=oracle.disco3iv.Disco3iv  
servlet.discoservlet.initArgs=config=http://mywebserver.company.com/  
disco3ivfiles/html/disco3iv.xml
```

where **D:/disco3ivhome** is the full path for the disco3iv.jar

- for Solaris, append the following three lines:

```
servlet.discoservlet.classpath=/usr/local/disco3ivhome/disco3iv/disco3iv.jar  
servlet.discoservlet.code=oracle.disco3iv.Disco3iv  
servlet.discoservlet.initArgs=config=http://mywebserver.company.com/  
disco3ivfiles/html/disco3iv.xml
```

where **/usr/local/disco3ivhome** is the full path for the disco3iv.jar

Save and exit.

2.3.7.5 Editing the rules.properties configuration file

Edit the **rules.properties** file.

This can be found in the NES installation directory. For example:

- (under NT) if you have installed NES to D:\Netscape\Server4 the file can be found in the D:\Netscape\Server4\https-**mywebserver**\config directory
- (under Solaris) if you have installed NES to /usr/local/netscape/server4 the file can be found in the /usr/local/netscape/server4/https-**mywebserver**/config directory

where **mywebserver** is the name of the machine the Server has been installed on.

Append the following line to the end of the file

```
/discoservlet=discoservlet
```

Save and exit.

2.3.7.6 Edit the jvm12.conf configuration file

Edit jvm12.conf

This can be found in the NES installation directory. For example:

- (under NT) if you have installed NES to D:\Netscape\Server4 the file can be found in the D:\Netscape\Server4\https-**mywebserver**\config directory
- (under Solaris) if you have installed NES to /usr/local/netcape/server4 the file can be found in the /usr/local/netcape/server4/https-**mywebserver**/config directory

where **mywebserver** is the name of the machine the Server has been installed on.

2.3.7.6.1 Adding classpath information

To make sure that vbjorb.jar and vbjapp.jar are loaded first, modify the 'jvm.classpath' line as follows:

- for NT, add the following text:

D:/orant/vbroker/lib/vbjorb.jar;**D:/orant**/vbroker/lib/vbjapp.jar;

Before you add the text, the line looks like this:

```
jvm.classpath=D:/Netscape/Server4/plugins/samples/servlets/beans/
SDKBeans.jar;D:/Netscape/Server4/bin/https/jar/xml4j_1_1_9.jar;D:/Netscape/
Server4/bin/https/jar/Bugbase.jar;D:/Netscape/Server4/bin/https/jar/
Calljsac.jar
```

After you add the text, the line looks like this:

```
jvm.classpath=D:/orant/vbroker/lib/vbjorb.jar;D:/orant/vbroker/lib/
vbjapp.jar;D:/Netscape/Server4/plugins/samples/servlets/beans/
SDKBeans.jar;D:/Netscape/Server4/bin/https/jar/xml4j_1_1_9.jar;D:/Netscape/
Server4/bin/https/jar/Bugbase.jar;D:/Netscape/Server4/bin/https/jar/
Calljsac.jar
```

where **D:/orant** is the directory where you installed Visibroker.

- for Solaris, add the following text:

/usr/local/vbroker/lib/vbjorb.jar;/usr/local/vbroker/lib/vbjapp.jar;

Before you add the text, the line looks like this:

```
jvm.classpath=/usr/local/netcape/server4/plugins/samples/servlets/beans/
SDKBeans.jar;/usr/local/netcape/server4/bin/https/jar/xml4j_1_1_9.jar;/usr/
local/netcape/server4/bin/https/jar/Bugbase.jar;/usr/local/netcape/
server4/bin/https/jar/Calljsac.jar
```

After you add the text, the line looks like this:

```
jvm.classpath=/usr/local/vbroker/lib/vbjorb.jar;/usr/local/vbroker/lib/vbjapp.jar;/usr/local/netcape/server4/plugins/samples/servlets/beans/SDKBeans.jar;/usr/local/netcape/server4/bin/https/jar/xml4j_1_1_9.jar;/usr/local/netcape/server4/bin/https/jar/Bugbase.jar;/usr/local/netcape/server4/bin/https/jar/Calljsac.jar
```

where **/usr/local/vbroker** is the directory where you installed Visibroker.

Note that in both cases, the classpath must **not** include a manual line break or carriage return.

2.3.7.6.2 Adding JVM parameters

Append the following 2 lines at the bottom of the file

```
org.omg.CORBA.ORBClass=com.visigenic.vbroker.orb.ORB
org.omg.CORBA.ORBSingletonClass=com.visigenic.vbroker.orb.ORB
```

Save the file and exit.

2.3.7.7 Edit the start-jre configuration file

Edit the start-jre file.

This can be found in the NES installation directory. For example:

- (under NT) if you have installed NES to D:\Netscape\Server4 the file can be found in the D:\Netscape\Server4\https-admserv directory
- (under Solaris) if you have installed NES to /usr/local/netcape/server4 the file can be found in the /usr/local/netcape/server4/https-admserv directory

2.3.7.7.1 Adding classpath information

To include the location of the disco3iv.jar file and to make sure that vbjorb.jar and vbjapp.jar are loaded first, modify the 'NSES_classpath' line as follows:

- for NT, add the following text:

```
D:/disco3ivhome/disco3iv/disco3ivjar;D:/orant/vbroker/lib/vbjorb.jar;D:/orant/vbroker/lib/vbjapp.jar;
```

Before you add the text, the line looks like this:

```
NSES_classpath=D:/Netscape/Server4/plugins/samples/servlets/beans/SDKBeans.jar;D:/Netscape/Server4/bin/https/jar/xml4j_1_1_9.jar;D:/Netscape/Server4/bin/https/jar/Bugbase.jar;D:/Netscape/Server4/bin/https/jar/Calljsac.jar
```


After you add the text, the line looks like this:

```
NSES_classpath=D:/disco3ivhome/disco3iv/disco3iv.jar;D:/orant/vbroker/lib/
vbjorb.jar;D:/orant/vbroker/lib/vbjapp.jar;D:/Netscape/Server4/plugins/
samples/servlets/beans/SDKBeans.jar;D:/Netscape/Server4/bin/https/jar/
xml4j_1_1_9.jar;D:/Netscape/Server4/bin/https/jar/Bugbase.jar;D:/Netscape/
Server4/bin/https/jar/Calljsac.jar
```

where **D:/disco3ivhome** is the location of /disco3iv/disco3iv.jar, and **D:/orant** is the directory where you installed Visibroker.

- for Solaris, add the following text:

```
/usr/local/disco3ivhome/disco3iv/disco3iv.jar;/usr/local/vbroker/lib/
vbjorb.jar;/usr/local/vbroker/lib/vbjapp.jar;
```

Before you add the text, the line looks like this:

```
NSES_classpath=/usr/local/netscape/server4/plugins/samples/servlets/beans/
SDKBeans.jar;/usr/local/netscape/server4/bin/https/jar/xml4j_1_1_9.jar;/usr/
local/netscape/server4/bin/https/jar/Bugbase.jar;/usr/local/netscape/
server4/bin/https/jar/Calljsac.jar
```

After you add the text, the line looks like this:

```
NSES_classpath=/usr/local/disco3ivhome/disco3iv/disco3iv.jar;/usr/local/
vbroker/lib/vbjorb.jar;/usr/local/vbroker/lib/ vbjapp.jar;/usr/local/
netscape/server4/plugins/samples/servlets/beans/ SDKBeans.jar;/usr/local/
netscape/server4/bin/https/jar/xml4j_1_1_9.jar;/usr/local/netscape/server4/
bin/https/jar/Bugbase.jar;/usr/local/netscape/server4/bin/https/jar/
Calljsac.jar
```

where **/usr/local/disco3ivhome** is the location of /disco3iv/disco3iv.jar and **/usr/local/vbroker** is the directory where you installed Visibroker.

Note that in both cases, the classpath must **not** include a manual line break or carriage return.

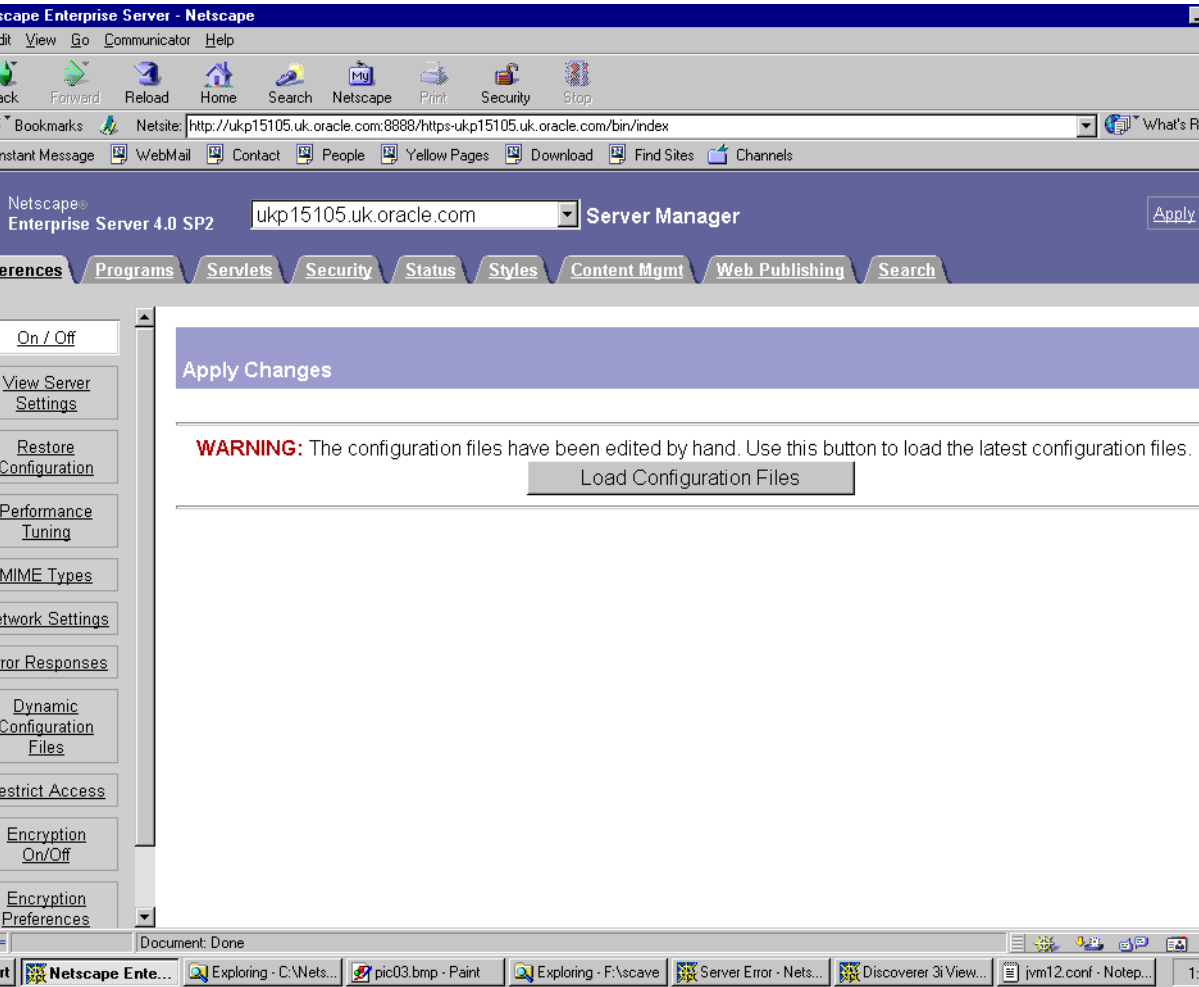
2.3.7.8 Running the NES 4.0 servlet

Before you start the servlet go to Section 2.3.4.4, “Oracle Discoverer 3i Viewer Edition .XML File Configuration” and follow the instructions there for updating the .xml file with the correct value for the Discoverer session name.

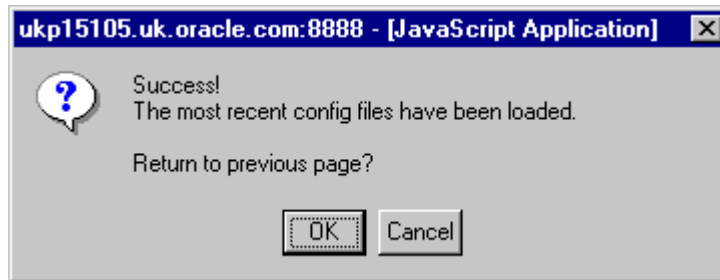
To restart the Web Server do the following:

1. Select the ‘Preferences’ tab and click the Server On button to start the server.

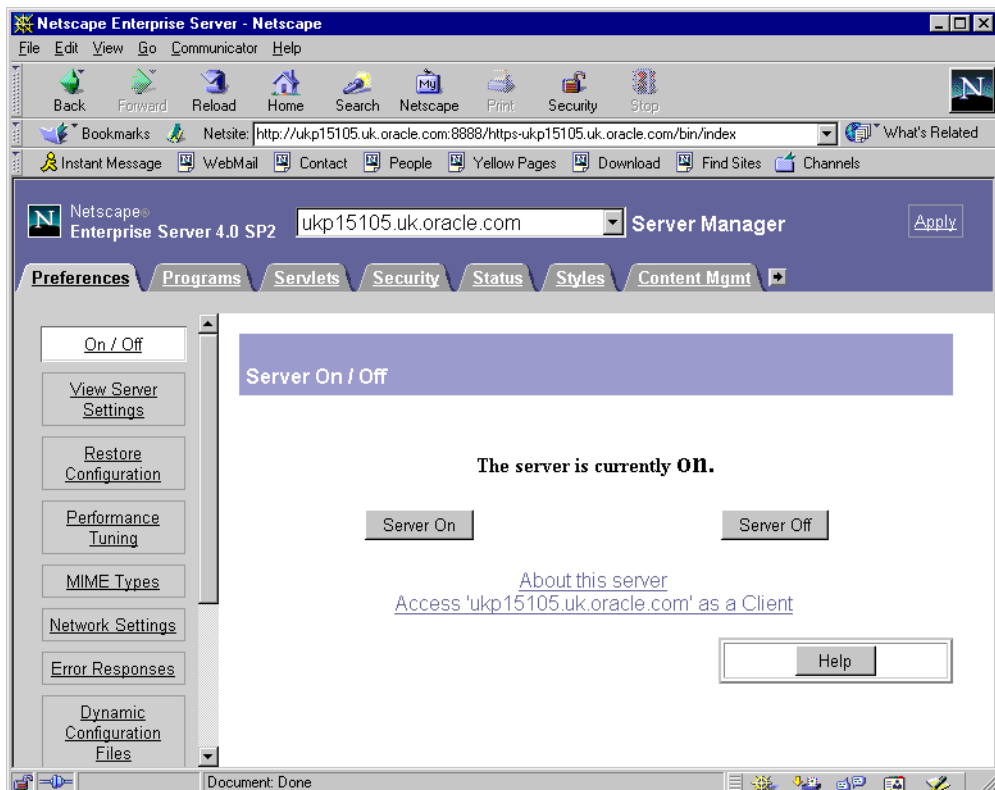
2. The following window is displayed:



3. Click the ‘Load Configuration Files’ button in the above window
The following dialog is displayed



4. Click 'OK' to continue
The Server Manager window is displayed



5. Click the 'Server On' button to restart the server
The following dialog is displayed:

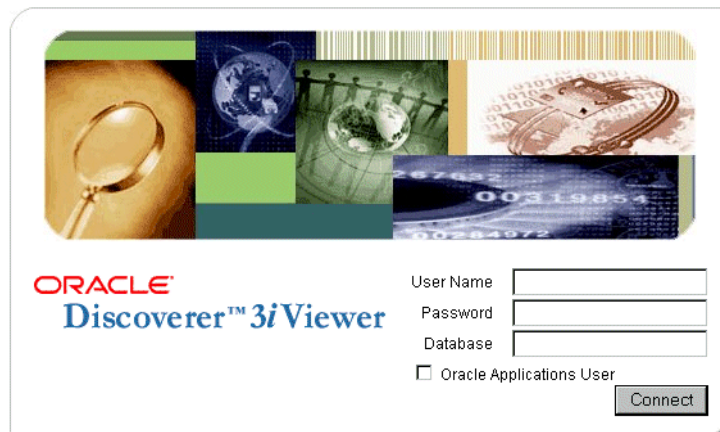


6. Click 'OK'
Your server is now running.
7. Start a browser window and type the following:

mywebserver.company.com/discoservlet

Where **mywebserver.company.com** is the machine name the HTTP server is installed on.

This should start Discoverer 3i Viewer.



Your configuration is complete.

2.3.8 Configuring JRun Servlet Engine

This servlet engine can be used with a number of different web servers.

This section includes the following topics:

- Web servers supported by JRun
- Editing the Java Service Manager configuration file for JRun Servlet
- Editing the servlets.properties configuration file for the JRun Servlet
- Running the JRun Servlet

2.3.8.1 Web servers supported by JRun

JRun is a separate Servlet Engine that can run with different Web Servers.

- Apache 1.3.6/1.3.9/1.3.11
- IIS 4.0/PWS 4.0
- Netscape Enterprise Server 4.0

Although JRun has a user interface all configuration files are stored as text files which are simpler to edit and manage.

2.3.8.2 Defining a directory alias under Apache 1.3.9

If you are using JRun servlet engine under Apache then See Section 2.3.6.1, “Defining a directory alias for an Apache web server” for details.

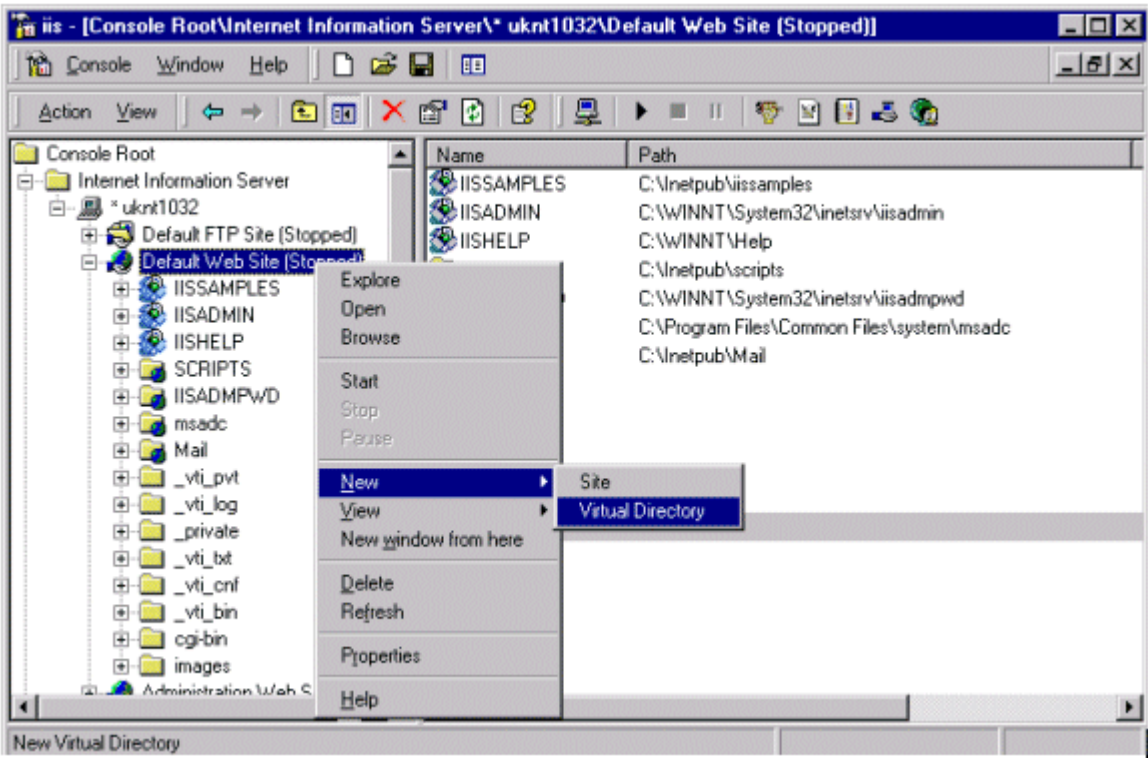
2.3.8.3 Defining a directory alias under Netscape Enterprise Server 4.0

If you are using JRun servlet engine under Netscape Enterprise Server 4.0 then see Section 2.3.6.1, “Defining a directory alias for an Apache web server” for details.

2.3.8.4 Defining a directory alias under IIS 4.0

Start up the Microsoft Internet Service Manager

Select default web site under the machine name you wish to configure.



Right click to get the menu and select the 'New ->Virtual Directory'



Enter '**disco3ivfiles**' as the virtual directory and press 'Next'.



Enter '**d:\disco3ivhome\disco3iv**' and press 'Next'.



Ensure that all check boxes are checked and press 'Finish'

2.3.8.5 Checking the directory alias under IIS

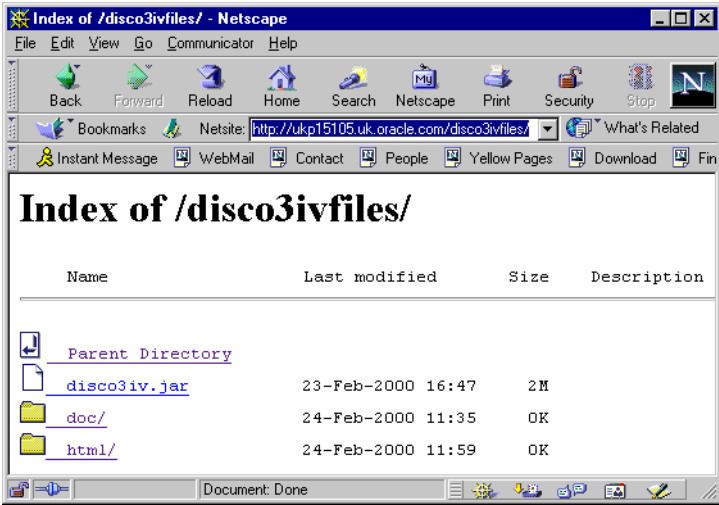
Select 'Default Web Site' under the machine name you wish to configure.

Right click and select 'Start' if it is not greyed out (i.e. it has not already been selected).

Start a browser and enter the following

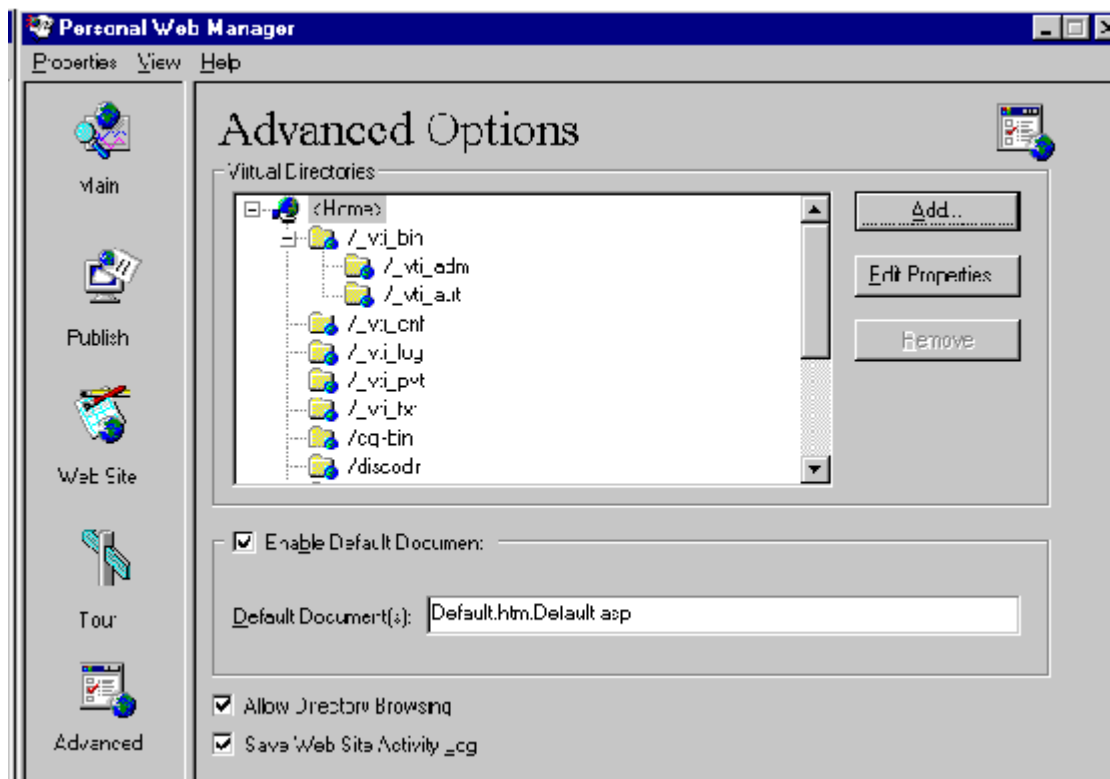
'mywebserver.company.com/disco3ivfiles/'

This should give you the following window:



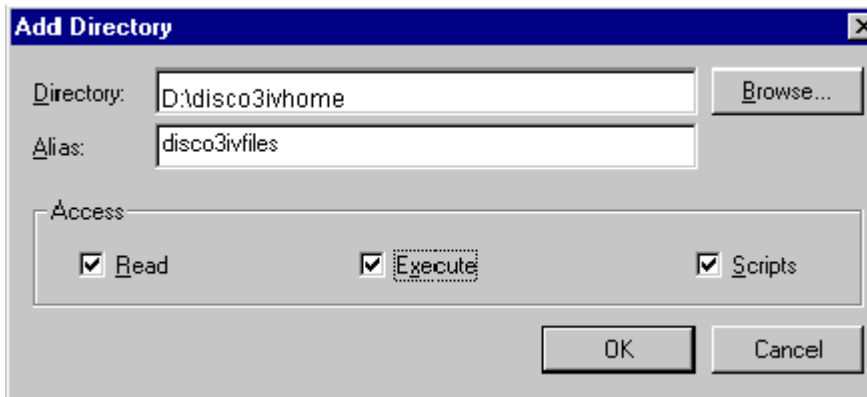
2.3.8.6 Defining a directory alias under PWS 4.0

Start up the Personal Web Manager



Make sure the 'Allow Directory Browsing' checkbox is ticked as it is unchecked by default.

Click on the 'Add button' and enter the following information:



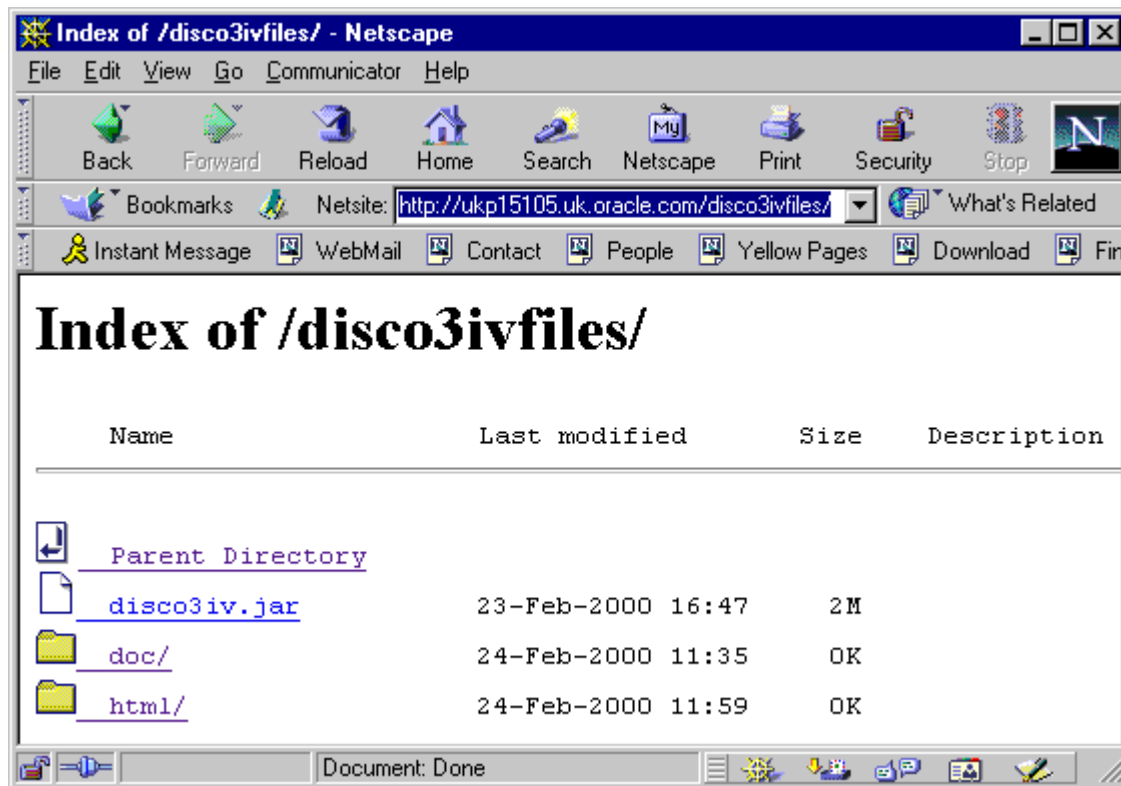
Make sure the 'Execute' checkbox is ticked as it is unchecked by default.
Click OK.

2.3.8.7 Checking the Directory Alias for PWS 4.0 Web Server

Stop and restart IIS/PWS and then type in the following address into the address window

'mywebserver.company.com/disco3ivfiles/'

This should give you the following window:



2.3.8.8 Editing the Java Service Manager configuration file for JRun Servlet

Edit the *jsm.properties* file.

This can be found in the JRun installation directory.

Eg if you installed JRun to D:\JRun then the file can be found in the

D:\JRun\jsm-default\properties.

2.3.8.8.1 Adding classpath information

You need to prepend the following string to your classpath value.

D:\orant\vbroker\lib\vbjorb.jar;D:\orant\vbroker\lib\vbjapp.jar;D:\disco3ivhome\disco3iv\disco3iv.jar;

Before change it looks like this:

```
java.classpath=D:/JRun/classes;D:/JRun/jsm-default/classes;D:/JRun/lib/
jrun.jar;D:/JRun/lib/servlet.jar;D:/JRun/web/WEBL.jar;D:/JRun/lib/jsp.jar;D/
JRun/lib/xml4j.jar;D:/JRun/lib/xt.jar;D:/JRun/lib/fesi.jar;D:/JRun/lib/
cfanywhere.jar;D:/JRun/lib/NetComponents.jar;D:/JRun/lib/OROMatcher.jar;D:/JRun/
lib/tools.jar;D:/JRun/instantdb/classes;D:/JRun/lib/jrunadmin/
jrunadmin.jar;d:\jdk1.2.1\lib\classes.zip;d:\jdk1.2.1\lib/
rt.jar;d:\jdk1.2.1\lib\i18n.jar;d:\jdk1.2.1\jre\lib\rt.jar;d:\jdk1.2.1\
jre\lib\i18n.jar;d:\jdk1.2.1\lib\tools.jar;D:/JRun/lib/jrunadmin/swing.jar;
```

Afterwards it looks like this:

```
java.classpath=D:/orant/vbroker/lib/vbjorb.jar;D:/orant/vbroker/lib/
vbjapp.jar;D:/disco3ivhome/disco3iv/disco3iv.jar;D:/JRun/classes;D:/JRun/
jsm-default/classes;D:/JRun/lib/jrun.jar;D:/JRun/lib/servlet.jar;D:/JRun/web/
WEBL.jar;D:/JRun/lib/jsp.jar;D:/JRun/lib/xml4j.jar;D:/JRun/lib/xt.jar;D:/JRun/
lib/fesi.jar;D:/JRun/lib/cfanywhere.jar;D:/JRun/lib/NetComponents.jar;D:/JRun/
lib/OROMatcher.jar;D:/JRun/lib/tools.jar;D:/JRun/instantdb/classes;D:/JRun/lib/
jrunadmin/jrunadmin.jar;d:\jdk1.2.1\lib\classes.zip;d:\jdk1.2.1\lib/
rt.jar;d:\jdk1.2.1\lib\i18n.jar;d:\jdk1.2.1\jre\lib\rt.jar;d:\jdk1.2.1\
jre\lib\i18n.jar;d:\jdk1.2.1\lib\tools.jar;D:/JRun/lib/jrunadmin/swing.jar;
```

(where **D:/disco3ivhome/disco3iv** is the full path for *disco3iv.jar*)

(Note: the above classpath must **not** include a manual line break or carriage return)

2.3.8.8.2 Adding JVM Parameters

Append the following line to the end of the file

```
java.args=-Dorg.omg.CORBA.ORBClass=com.visigenic.vbroker.orb.ORB
-Dorg.omg.CORBA.ORBSingletonClass=com.visigenic.vbroker.orb.ORB
```

(Note: the above classpath must **not** include a manual line break or carriage return)

Save the file and exit.

2.3.8.9 Editing the `servlets.properties` configuration file for the JRun Servlet

The file is called `servlets.properties`

This can be found in the JRun installation directory.

If you installed JRun to D:\JRun then the file can be found at
D:\JRun\jsm-default\services\jse\properties

2.3.8.9.1 Defining the servlet

Add the following lines to the end of the file

```
servlet.discoservlet.code=oracle.disco3iv.Disco3iv  
servlet.discoservlet.args=config=http://mywebserver.company.com/disco3ivfiles/  
html/disco3iv.xml  
servlet.discoservlet.preload=true
```

Save the file and exit.

2.3.8.10 Running the JRun Servlet

In order to run the servlet you need to stop and restart in the following order

1. Stop JRun
2. Stop Web Server
3. Start Web Server
4. Start JRun

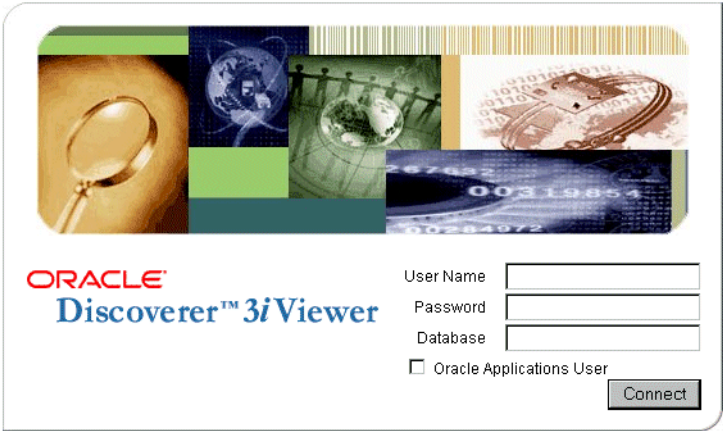
Before you start the servlet go to Section 2.3.4.4, “Oracle Discoverer 3i Viewer Edition .XML File Configuration” and follow the instructions there for updating the .xml file with the correct value for the Discoverer session name.

Start a browser window and type the following:

mywebserver.company.com/servlet/discoservlet

Where **mywebserver.company.com** is the machine name the HTTP server is installed on.

This should start Discoverer 3i Viewer.



Your installation is now complete.

2.3.9 Configuring ServletExec 2.2c Servlet

This section includes the following topics:

- Editing the servlets.properties configuration file
- Editing the rules.properties configuration file
- Editing the Classpath.pref file
- Running the Servlet

2.3.9.1 Editing the servlets.properties configuration file

The file is called servlets.properties

This can be found in the ServletExec installation directory.

If you installed ServletExec to D:\ServletExec then the file can be found at

D:\ServletExec\ServletExec Data\default

2.3.9.1.1 Defining the servlet

Append the following 4 lines to the end of the document

```
# discoservlet servlet
servlet.discoservlet.code=oracle.disco3iv.Disco3iv
servlet.discoservlet.codebase=D:/disco3ivhome/disco3iv.jar
servlet.discoservlet.initArgs=config=http://mywebserver.company.com/
disco3ivfiles/html/disco3iv.xml
```

Save the file and exit.

2.3.9.2 Editing the rules.properties configuration file

The file is called rules.properties and can be found in the ServletExec installation directory.

If you installed ServletExec to D:\ServletExec then the file can be found at

D:\ServletExec\ServletExec Data\default

Append the following line to the end of the file

```
/discoservlet=discoservlet
```

Save the file and exit.

2.3.9.3 Editing the Classpath.pref file

The file is called *Classpath.pref*

This can be found in the ServletExec installation directory.

If you installed ServletExec to D:\ServletExec then the file can be found at
D:\ServletExec\ServletExec Data

Append the following text to the existing line.

```
;D:/orant/vbroker/lib/vbjorb.jar;D:/orant/vbroker/lib/vbjapp.jar
```

So before the line will look like this:

```
D:\SE4\classes
```

Afterwards it will look like this:

```
D:\SE4\classes  
;D:/orant/vbroker/lib/vbjorb.jar;D:/orant/vbroker/lib/vbjapp.jar
```

*(Note: the above line must **not** include a manual line break or carriage return)*

Save file and exit

2.3.9.4 Running the Servlet

Stop and restart the Web Server

Before you start the servlet go to Section 2.3.4.4, “Oracle Discoverer 3i Viewer Edition .XML File Configuration” and follow the instructions there for updating the .xml file with the correct value for the Discoverer session name.

Start a web browser and type the following

mywebserver.company.com/servlet/discoservlet

Where **mywebserver.company.com** is the machine name the HTTP server is installed on.

This should start Discoverer 3i Viewer.



Your installation is now complete.

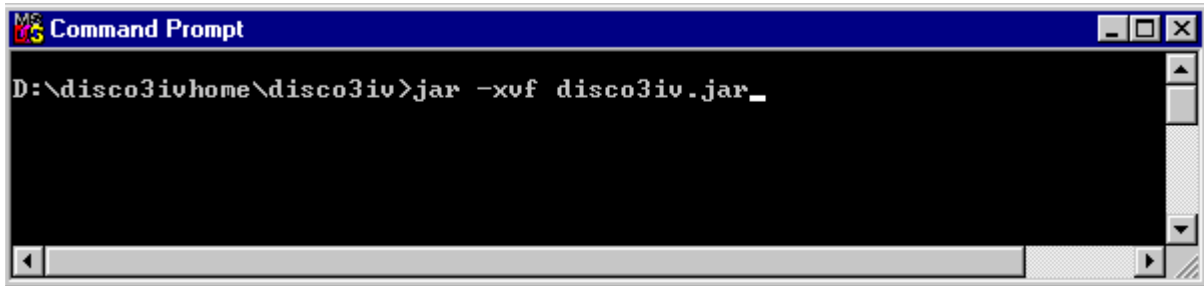
2.3.10 Configuring Oracle Application Server

2.3.10.1 Unpacking disco3iv.jar

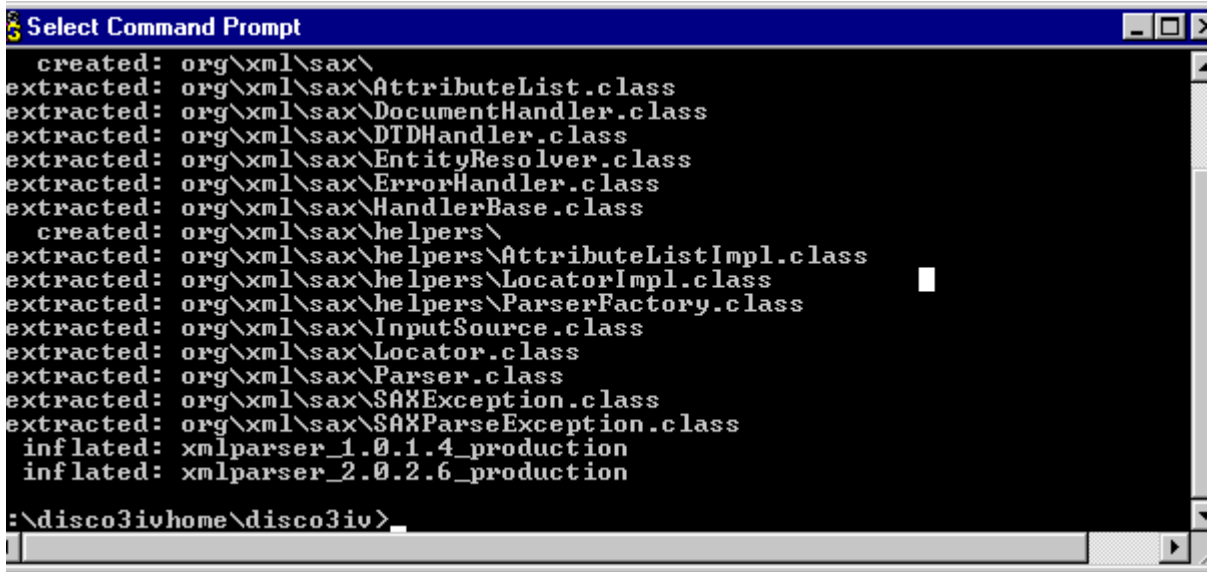
You must first unpack the disco3iv.jar file found in the **D:\disco3ivhome\disco3iv** directory.

It is necessary to download JRE 1.2.2 from **www.javasoft.com** to gain access to the unpacker executable **jar.exe**.

1. Download JRE 1.2.2 from **www.javasoft.com**
2. Install JRE 1.2.2 by double-clicking the downloaded JRE file (**jre1_2_2-005-win.exe**)
3. In an MSDOS window change directory to: **d:\disco3ivhome\disco3iv**
4. In the MSDOS window, type in the command: **jar -xvf disco3iv.jar**



After hitting 'Return' and executing the command, you will get similar results at the end of the extraction as shown below.



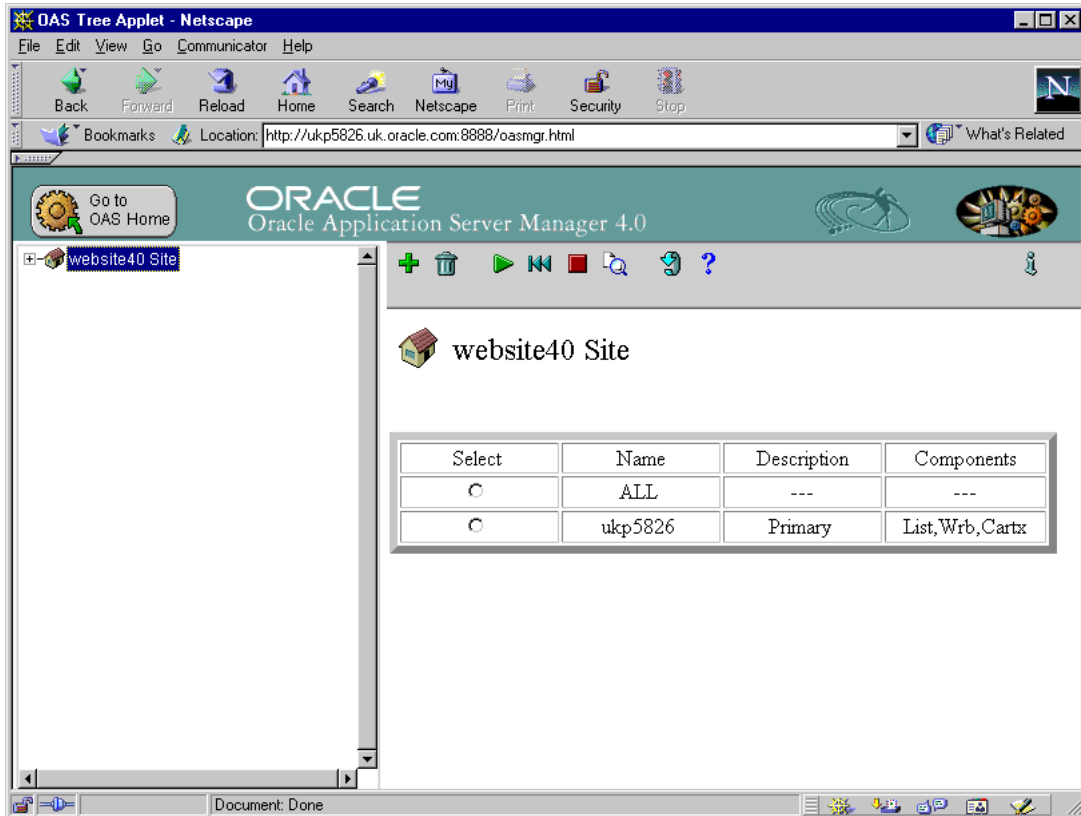
```
Select Command Prompt
created: org\xml\sax\
extracted: org\xml\sax\AttributeList.class
extracted: org\xml\sax\DocumentHandler.class
extracted: org\xml\sax\DTDHandler.class
extracted: org\xml\sax\EntityResolver.class
extracted: org\xml\sax\ErrorHandler.class
extracted: org\xml\sax\HandlerBase.class
created: org\xml\sax\helpers\
extracted: org\xml\sax\helpers\AttributeListImpl.class
extracted: org\xml\sax\helpers\LocatorImpl.class
extracted: org\xml\sax\helpers\ParserFactory.class
extracted: org\xml\sax\InputSource.class
extracted: org\xml\sax\Locator.class
extracted: org\xml\sax\Parser.class
extracted: org\xml\sax\SAXException.class
extracted: org\xml\sax\SAXParseException.class
inflated: xmlparser_1.0.1.4_production
inflated: xmlparser_2.0.2.6_production

:\disco3ivhome\disco3iv>
```

2.3.10.2 Setting the Listener Properties

Start the Oracle Application Server Manager by selecting Start | Oracle Application Server | Oracle Application Server Manager.

Type your username and password.



Expand the top level item.

Expand the 'HTTP Listeners' section and select your default HTTP listener.

By default there is always 2 listeners.

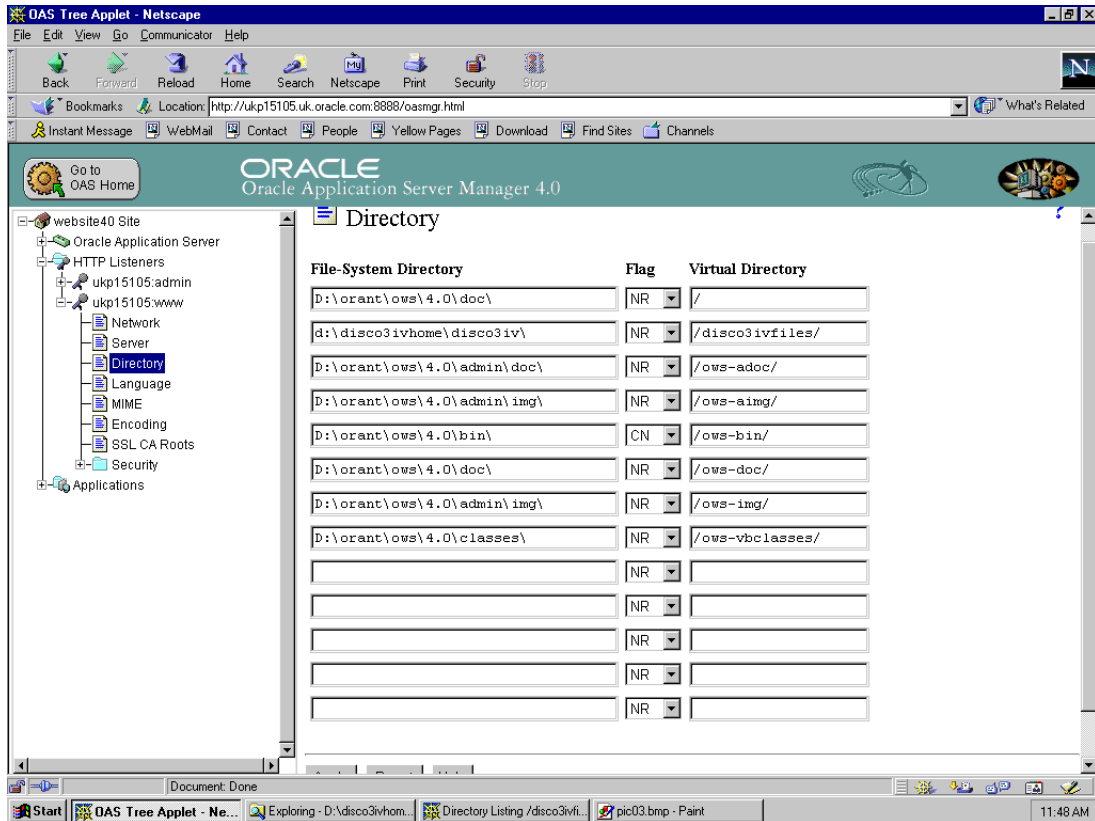
The '**mywebserver.company.com:admin**' listener is used for administration of the web site.

The '**mywebserver.company.com:www**' listener is used for web browsers to access your web server.

1. Expand the '**mywebserver.company.com:www**' listener.
2. Select 'Server'
3. Set 'Directory Indexing' to TRUE(default is FALSE).
4. Click on 'Apply'.

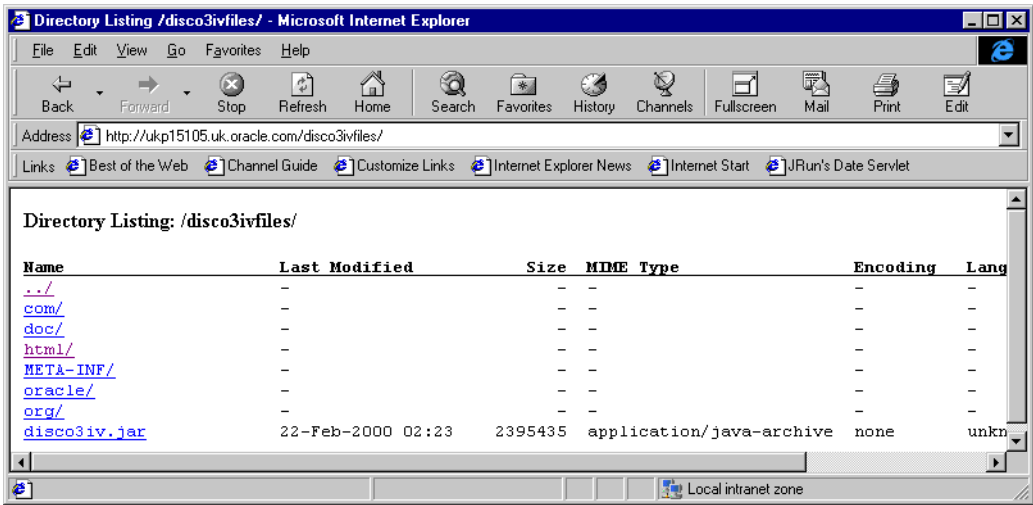
5. Click OK to close the Success dialog box.

2.3.10.3 Defining a Directory Alias



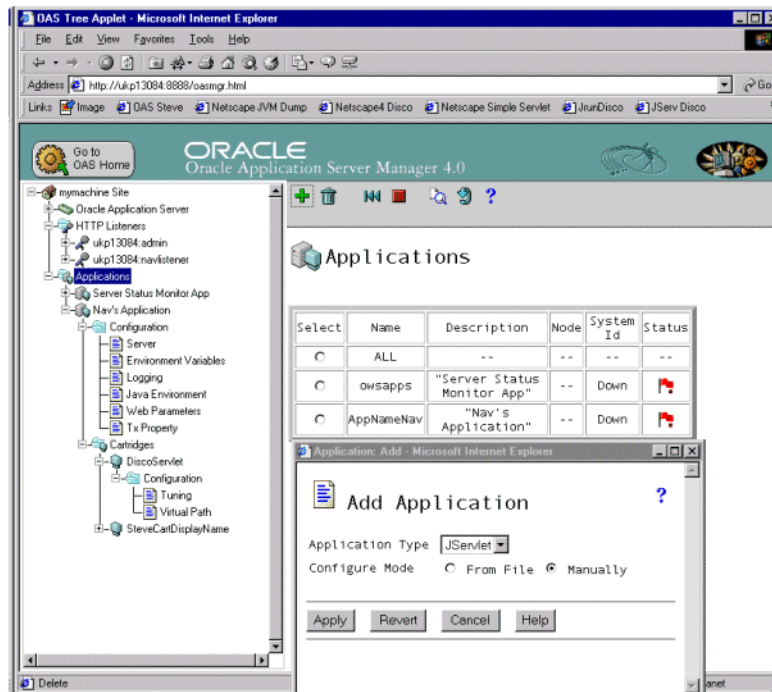
1. Select 'Directory'
2. Enter 'D:\disco3ivhome\disco3iv\' for 'File System Directory'
3. Leave 'Flag' as default(NR)
4. Enter '/disco3ivfiles/' for 'Virtual Directory'
5. Click on 'Apply'
6. Click OK to close the Success dialog box.

- 7. Stop and restart the OAS web server.
- 8. Start a browser and enter the following into the address window:
'mywebserver.company.com/disco3ivfiles/'



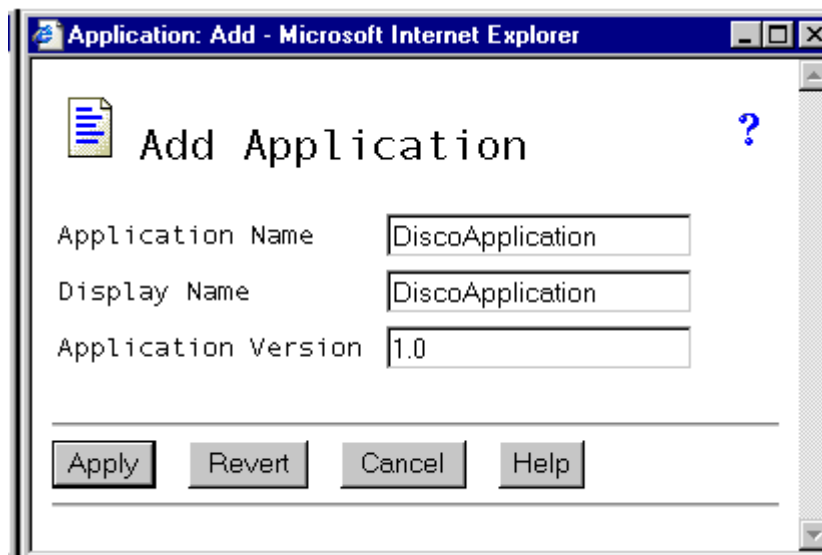
You should get the contents of the directory similar to the above.

2.3.10.4 Creating an Application

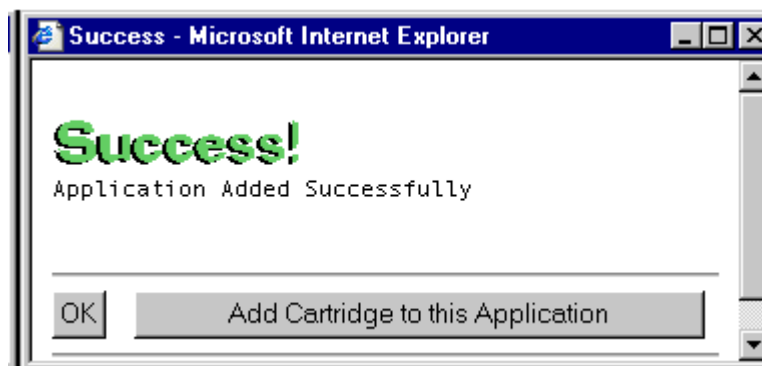


1. In the Oracle Application Server Manager, click on the 'Applications' element.
2. Click on the green '+' button on the toolbar in the above window (shown highlighted in above figure)
3. In the 'Add Application' dialog box click on Application Type and select 'JServlet'
4. Ensure that the 'Configuration Mode is set to 'Manually'.
5. Click 'Apply'

2.3.10.5 Configuring the Application

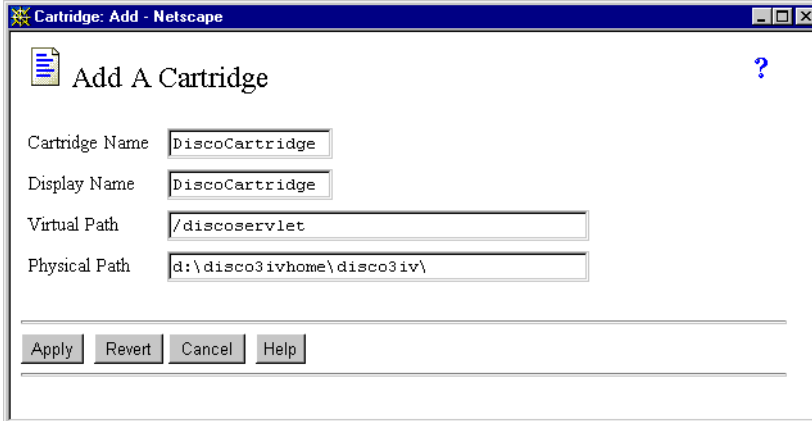


1. Enter 'DiscoApplication' for 'Application Name'
2. Enter 'DiscoApplication' for 'Display Name'
3. Enter '1.0' for 'Application Version'
4. Click 'Apply'



5. In the above dialog box click 'Add Cartridge to this Application'

2.3.10.6 Configure the Cartridge



Cartridge: Add - Netscape

Add A Cartridge ?

Cartridge Name

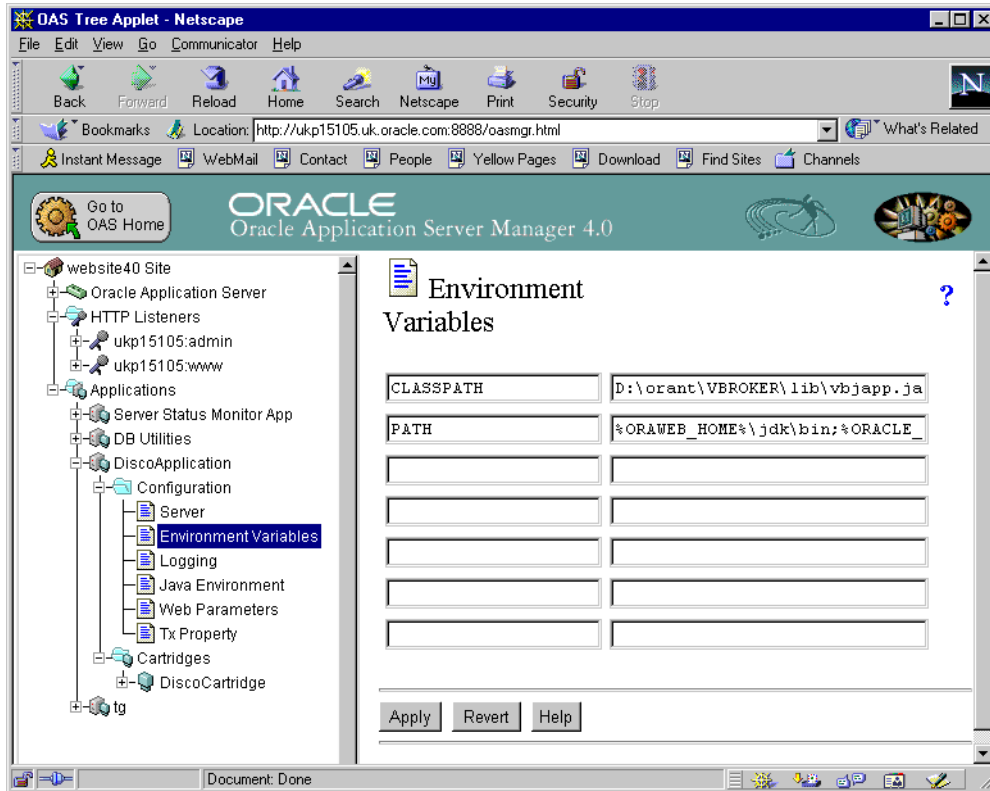
Display Name

Virtual Path

Physical Path

1. Enter 'DiscoCartridge' for 'Cartridge Name'.
2. Enter 'DiscoCartridge' for 'Display Name'.
3. Enter '/**discoservlet**' for 'Virtual Path'.
4. Enter '**D:\disco3ivhome\disco3iv**' for Physical Path to the unpacked disco3iv.jar'.
5. Click the 'Apply' button
6. Click OK to close the Success dialog box.

2.3.10.7 Configuring the Application Environment



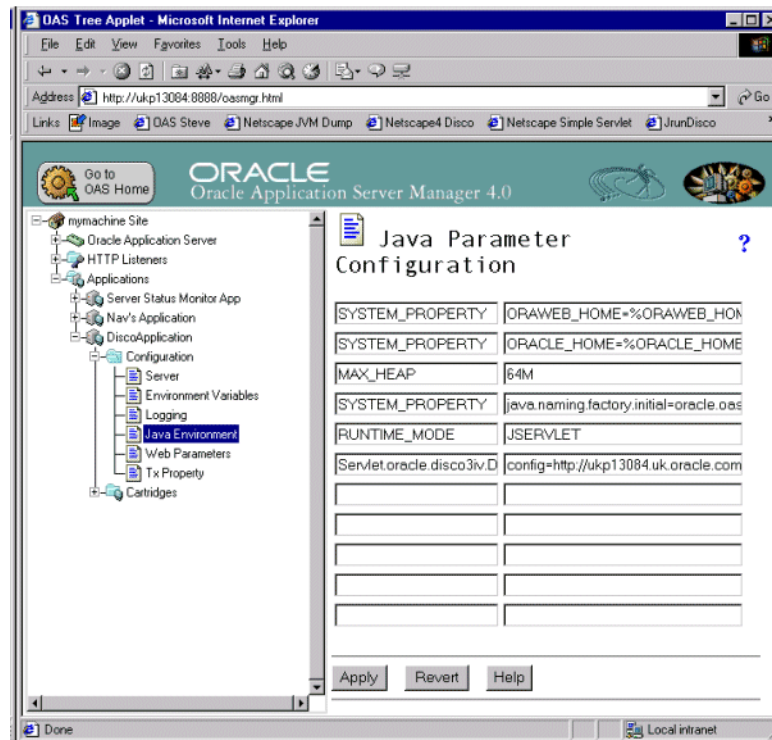
1. Expand the 'DiscoApplication' icon.
2. Expand the 'Configuration' icon.
3. Select the 'Environment Variables' option.
4. Add the following line to the start of the value for 'CLASSPATH'

D:\disco3ivhome\disco3iv\disco3iv.jar;D:\orant\VBROKER\lib\VBJAPP.JAR;D:\orant\VBROKER\lib\VBJORB.JAR;

5. Click on the 'Apply' button to update the CLASSPATH variable.

- Click OK to close the Success dialog box.

2.3.10.8 Configuring the Java Environment



- Select the 'Java Environment' option.
- Enter 'Servlet.oracle.disco3iv.Disco3iv.initArgs' in the left field
- Enter 'config=http://mywebserver.company.com/disco3ivfiles/html/disco3iv.xml' in the right field.
- Click on Apply.
- Click OK to close the Success dialog box.

2.3.10.9 Starting the Servlet

Before you start the servlet go to Section 2.3.4.4, “Oracle Discoverer 3i Viewer Edition .XML File Configuration” and follow the instructions there for updating the .xml file with the correct value for the Discoverer session name.

1. Stop and restart the OAS Web Server
2. Start a web browser
3. Enter the following for URL:

<http://mywebserver.company.com/discoservlet/oracle.disco3iv.Disco3iv>

You should see the following screen

The image shows the Oracle Discoverer 3i Viewer login interface. At the top, there is a decorative banner with a collage of images including a magnifying glass, a globe, a network diagram, and binary code. Below the banner, the Oracle logo is displayed in red, followed by the text "Discoverer™ 3i Viewer" in blue. To the right of the logo, there are three input fields labeled "User Name", "Password", and "Database". Below these fields is a checkbox labeled "Oracle Applications User". At the bottom right, there is a "Connect" button.

ORACLE
Discoverer™ 3i Viewer

User Name

Password

Database

☐ Oracle Applications User

Connect

The servlet is now running and your installation is complete.

2.3.11 Setting up a secure link using HTTPS

To ensure that your entire discoverer document is secure and to get your browser to acknowledge a “secure” page, it is necessary to make a minor adjustment to your **disco3iv.xml** file.

Make changes as follows:

1. Open your **disco3iv.xml** file for editing
2. Change the **image_path** so to includes **https** and the **full path** to the image directory.

```
<argument name="image_path" type="href"> images</argument>
<argument name="image_path" type="href">https://mywebserver.company.com/
disco3ivhome/ images</argument>
```

Below is an example of the change:

disco3iv.xml - Before change

```
<argument name="help_path" type="href">help</argument><argument
name="image_path" type="href"> images</argument><argument
name="show_login_method_control">true</argument>      </document></disco_config>
```

disco3iv.xml - After change

```
<argument name="help_path" type="href">help</argument><argument
name="image_path" type="href">https://mywebserver.company.com/disco3ivfiles/
images</argument><argument name="show_login_method_control">true</argument></
document></disco_config>
```

2.3.12 Upgrading from Discoverer Viewer Version 3.1

If you already have an existing installation of Discoverer Viewer Version 3.1 you can install Version 3i alongside it using the process described in the preceding sections. On completion of the upgrade, both versions of Discoverer viewer can run in parallel.

If you wish to de-install Discoverer Viewer Version 3.1, it is necessary to perform the following steps which can all be carried out from your Discoverer 3i Viewer install media :

- 1.** De-install Discoverer Viewer 3.1
- 2.** De-install Visibroker
- 3.** Re-install Visibroker

Maintaining and Supporting Discoverer 3i Application Server

This chapter explains how to maintain Discoverer 3i Application Server.

The topics include:

- Using Discoverer's NT Service
- Seeing Registered Discoverer Server Components
- Editing the End User Preferences
- Registering and Unregistering components
- Shutting Down
- Adding and Removing Servers
- How to Run the Locator on Another Machine
- Frequently Asked Questions

3.1 Using Discoverer's NT Service

An NT Service is a special process that NT can start automatically at startup. Typical NT Services start various computer operations, such as networking and remote access procedures, server operations, and telephony processes. Discoverer creates a single, automatic NT Service that is installed when you install Discoverer. That automatic NT service, named "OracleDiscoverer3i", automatically starts the Locator and the CORBA services whenever the NT machine is started. Using the Discoverer NT service, you can also stop all of these components by simply stopping the service from running.

A key benefit of having Discoverer's server components started as a single NT service is that you do not need to remain logged onto a machine for the service (and therefore the

server components) to stay running. If you launched each component individually on each machine, you would need to stay logged onto the machine(s) as the administrator. Logging off would automatically stop the components.

The Discoverer NT service runs the appropriate components based on the type of server you selected when installing Discoverer. The following table shows the components started by the Discoverer NT service for the servers.

Table 3–1 Discoverer NT Service Components

Server	Locator	CORBA services	OAD
Master		X	X
HTTP	X	X	
Other		X	X
Single Machine Installation	X	X	X

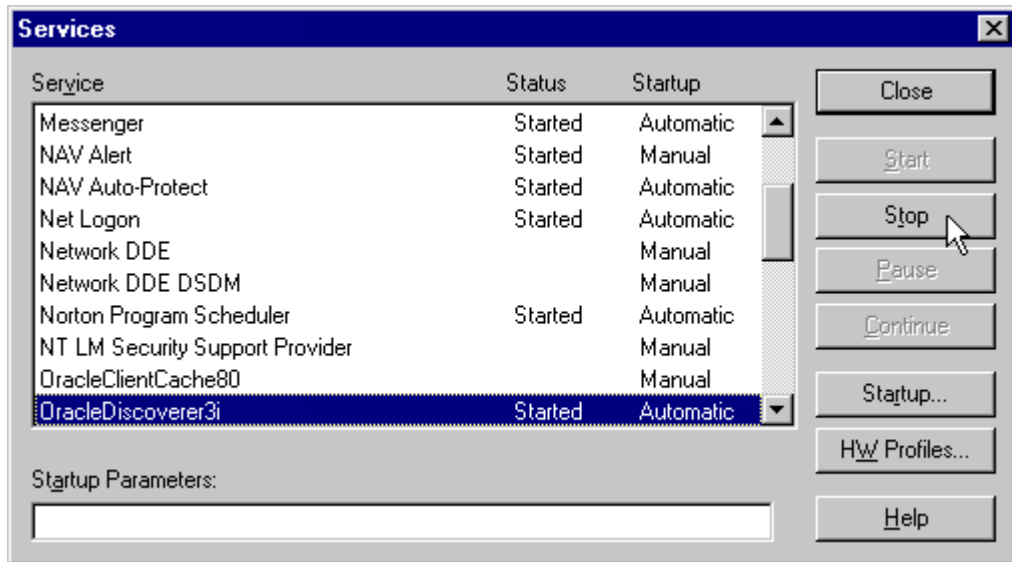
The Discoverer NT service is set to start automatically, but you can also start it and stop it manually by selecting Settings | Control Panel | Services.

For a custom installation, the Discoverer NT service automatically starts the Locator and Smart Agent (OSAgent) on machines where you installed the Locator. On machines where you installed the Session and Preferences components, the Discoverer NT service automatically starts the CORBA services.

To start the Discoverer NT service manually:

1. From the Windows Start menu, choose Settings | Control Panel and double-click on the Services icon.

The Services dialog box appears. It shows the OracleDiscoverer3i service.



Status—shows if the service is started and running; if it isn't the status column is blank.

Startup—shows how the service is started, either manually or automatically. The Discoverer NT service is set to start automatically.

2. To stop the service, select it in the dialog box and click the Stop button. Then close the dialog box.
3. To start the service, select it in the dialog box and click Start. Then close the dialog box.

Note: If your end users run Discoverer against an Oracle Application, always shut down the Listener before you start the Locator.

You can also change the service's Startup option so the Discoverer NT service does not automatically start when the computer is started. This may be useful if your network requires special services that require starting and stopping in a particular sequence. You can start the other services, and then manually start the Discoverer NT service at the appropriate time.

To change the Discoverer NT service to manual startup:

1. From the Windows Start menu, choose Settings | Control Panel and double-click on the Services icon.

The Services dialog box appears.

2. Select Oracle Discoverer Service 3i in the Services dialog box.

3. Click the Startup button.

The Service dialog box for the Oracle Discoverer Service 3i appears.

4. In the Startup Type section of the Service dialog box, select Manual.
5. Click OK.

3.1.1 Seeing Service Errors

The NT Event Log displays any errors that occur during startup of the Discoverer NT service. To see the NT Event Log, choose Start | Programs | Administrative Tools (Common) | Event Viewer.

Discoverer also keeps an internal log of errors that may occur when running the locator on an HTTP server. To see a list of locator errors, open the Locator.log file in the DiscWb33\applet directory in the HTTP server's root directory (or other directory if you installed the Discoverer client in some other directory). For custom installations that do not install the Locator on the HTTP server, the locator.log file is located in the directory named %ORACLE_HOME%\DiscWb33.

3.2 Seeing Registered Discoverer Server Components

Installed components are registered with the VisiBroker OAD (Object Activation Daemon). You can see the registered components for one machine or for the entire network.

To see the registered components on one machine:

1. Make sure the OAD is running.

To see if the OAD is running, run the Windows TaskManager (press Ctrl-Alt-Del and click the Task Manager button) to see if oad.exe is running and responding.

If the OAD isn't running, from the Windows Start menu choose Settings | Control Panel. Double-click Services, select OracleDiscoverer3i and click the Start button. If the OAD is running but not responding, click the Stop button, then click the Start button again. When the OAD is started correctly, click Close.

2. Open an MS-DOS window (choose Start | Programs | Command Prompt).
3. At the command prompt, type:

```
oadutil list
```

 and press return.

Note: Running the oadutil command displays only the list of components registered on the machine. It does not display all the components registered on the network of Discoverer machines.

```
MS-DOS Command Prompt
Microsoft(R) Windows NT(TM)
(C) Copyright 1985-1996 Microsoft Corp.

C:\>oadutil list
oadutil list: located 3 record(s)

Implementation #1:
-----
repository_id      = IDL:DCISessionManager:1.0
object_name        = PayablesOracleDiscovererSession3.3
reference data     = 
path_name          = C:\orant\DISCWB33\dis33ws.exe
activation_policy  = UNSHARED_SERVER
args               = <length=4>[-session; PayablesOracleDiscovererSession3.3; -
preference; PayablesOracleDiscovererPreferences3.3; 1
env                = NONE

Implementation #2:
-----
repository_id      = IDL:DCICollector:1.0
object_name        = PayablesOracleDiscovererCollector3.3
reference data     = 
path_name          = C:\orant\DISCWB33\dis33col.exe
activation_policy  = SHARED_SERVER
args               = <length=2>[-collector; PayablesOracleDiscovererCollector3.
3; 1
env                = NONE

Implementation #3:
-----
repository_id      = IDL:DCICORBAInterface:1.0
object_name        = PayablesOracleDiscovererPreferences3.3
reference data     = 
path_name          = C:\orant\DISCWB33\dis33pr.exe
activation_policy  = SHARED_SERVER
args               = <length=2>[-preference; PayablesOracleDiscovererPreference
s3.3; 1
env                = NONE

C:\>_
```

In this example the components are registered with the Discoverer Instance name of “Payables.” Two components are registered on the machine—Preferences and Session. A Collector file for logging events is also registered.

If you used the command on one of the Other Discoverer Servers, only the Session component would be registered.

To see all the registered components on the network:

1. Open an MS-DOS window.
2. At the command prompt, type:
`osfind` and press return.

A list shows all of the components running on the network.

3.3 Editing the End User Preferences

In section Section 2.3.4.1, “Editing the Discoverer Server Preferences”, you edited the Preferences file (pref.txt) with the IP addresses or machine names of each server being used for Discoverer Server. You use the same process to edit the other items in the Preferences file listed in Table 3–2, “Registry settings stored in the Preferences file”.

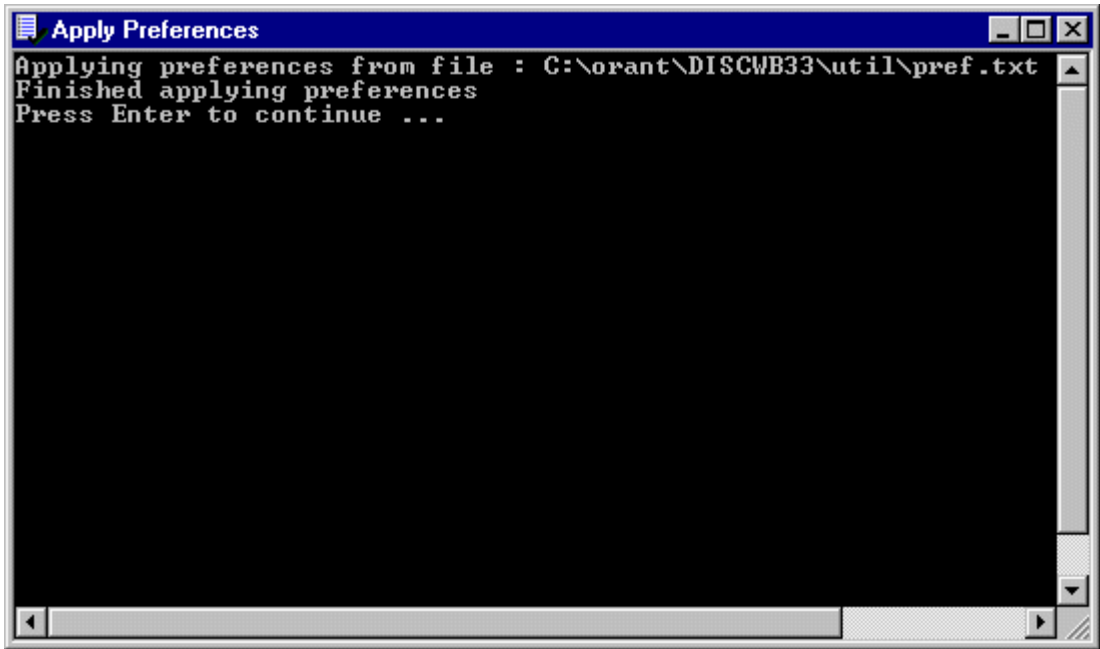
The other items in the Preferences file affect default settings that apply to all end users. When a new session starts, the settings in the Preference Repository take affect.

In some cases, end users can override these settings from the Discoverer 3i Viewer Edition Options page. Individual preferences are stored for each user as a unique combination of database and userid, and loaded whenever the user starts a new session. Therefore, users can log on from different client machines and still have their individual settings take effect. You can view the individual end user preference settings from within the Windows NT Registry Editor.

Note: Editing Preferences, such as adding a machine IP address, does not require that you shut down the Preferences component. Thus, users can continue working uninterrupted while you edit.

1. From the Windows Start menu, choose Programs | Oracle Discoverer Server 3i Setup | Edit Preferences.
2. The Pref.txt file appears in Notepad.
3. Edit the items in the Preferences file. See Table 3–2, “Registry settings stored in the Preferences file”.
4. Save the file and quit Notepad.
5. From the Windows Start menu, choose Programs | Oracle Discoverer Server 3i Setup | Apply Preferences.

A confirmation window shows that the new preferences have been saved. If you suspect that the file contains errors, check the error.txt file in the current directory.



6. To continue, press the Enter key.

The Preferences are updated in the Windows NT Registry. Preferences are now set for the Discoverer Server Instance.

The following table shows the items in the Preferences file.

Table 3–2 Registry settings stored in the Preferences file

Affected Feature	Preference Item Key Name	Description	Default/Values
Locator	MachineIPs	IP addresses or machine names of all Discoverer Server Application servers; this is the only required item in the Preferences file	

Table 3–2 Registry settings stored in the Preferences file

Affected Feature	Preference Item Key Name	Description	Default/Values
	DCW33_LOCATOR_JVM	Optional key. If present in the Registry under HKEY_LOCAL_MACHINE SOFTWARE ORACLE, it should point to the path of a JVM used by the Locator. Setting this key allows the Discoverer administrator to log off the machine where the Locator is installed without also stopping the Locator.	
Session Manager	Timeout	Amount of time after which Discoverer 3i disconnects an idle session from the database. Minimum time is 180 seconds.	1800 (seconds)
	RowsPerHTML	Number of rows to display per HTML page.	25 (any whole number)
Application	CacheFlushPercentage	Percentage of cache flushed if the cache is full	25
	MaxVirtualDiskMem	Maximum amount of disk memory allowed for the data cache	1024000000
	MaxVirtualHeapMem	Maximum amount of heap memory allowed for the data cache	1024000000
	QueryBehavior	Action to take after opening a workbook.	0
	ShowDialogBitmaps	End users see the bitmap graphics on User Edition dialogs.	1

Table 3–2 Registry settings stored in the Preferences file

Affected Feature	Preference Item Key Name	Description	Default/Values
	DataFormat	Applies HTML formatting to data cells in worksheets.	“<fontFormat font-Name=“Dialog” pitch=“10” bold=“false” italic=“false” underline=“false” strikethrough=“false” foreground=“0,0,0” background=“255, 255” valign=“top”></font-Format>”
	HeadingFormat	Applies HTML formatting to heading cells in worksheets.	“<fontFormat font-Name=“Dialog” pitch=“10” bold=“false” italic=“false” underline=“false” strikethrough=“false” foreground=“0,0,0” background=“204, 204” valign=“top”></font-Format>”
	TotalsFormat	Applies HTML formatting to cells that contain totals in worksheets.	“<fontFormat font-Name=“Dialog” pitch=“10” bold=“false” italic=“false” underline=“false” strikethrough=“false” foreground=“0,0,0” background=“255, 255” valign=“top”></font-Format>”
	NullValue	Specifies how null values are displayed in worksheets, for example, “NULL”, “N/A”, “0”.	“NULL”

Table 3–2 Registry settings stored in the Preferences file

Affected Feature	Preference Item Key Name	Description	Default/Values
Database	DisableFanTrapDetection	Disables detection for fan trap in user queries	0 (0 = on, 1 = off)
	DisableMultiJoinDetection	Disables multiple join detection	1 (0 = on, 1 = off)
	DisableAutoQuery	If set to 0, queries do not automatically run when a worksheet opens	0 (0 = on, 1 = off)
	ItemClassDelay	Fetch list of values for this amount of time before timing out	15 (seconds)
	PredictionThresholdSeconds	Warn user if the predicted query time will exceed the number of seconds	60 (seconds)
	PredictionThresholdSecondsEnabled	Query prediction threshold disabled (0) or enabled (1)	1
	QueryTimeLimit	Limit on query time in seconds	1800 (seconds)
	QueryTimeLimitEnabled	Query time limit disabled (0) or enabled (1)	1
	RowFetchLimit	The maximum number of rows fetched	10000 (rows)
	RowFetchLimitEnabled	RowFetchLimit parameter is disabled (0) or enabled (1)	1
	RowsPerFetch	The number of rows to fetch at once	100 (rows)
	SummaryThreshold	Use summary table only if it is no older than this number of days	30 (days) 0 do not use summary at all
	SummaryThresholdEnabled	If enabled (1), will use the value specified by SummaryThreshold. Otherwise, Discoverer will always use summary tables if they are available.	1
	DefaultEUL	Sets the EUL you want all users to connect to. Each user can override this default from the User Edition Options dialog.	Any EUL you have created.

Table 3–2 Registry settings stored in the Preferences file

Affected Feature	Preference Item Key Name	Description	Default/Values
Oracle Applications Mode	AppsGWYUID	Specifies the public username and "APPLSYSPUB/PUB" password for the AOL security dll	
	AppsFNDNAM	Specified the schema in which certain vital Oracle Applications data is stored	"APPS"
	ShowUserTypeChoice	Activates an end-user checkbox that allows them to specify whether they want to run Discoverer against an Oracle Application.	1
	DefaultUserTypeIsApps	Specifies that users run Discoverer by default against an Oracle Application.	1
Internal settings	BusinessAreaFastFetchLevel	Controls the amount of pre-caching that occurs for components and items whenever a Business Area is fetched	1
	ObjectsAlwaysAccessible	Verify that Business Area objects and items exist in the database	0 (0=verify; 1=don't verify and assume that the objects and items exist)
	SummaryObjectsUseCachedAccessibility	Controls whether to access the summary-derived objects in the cache	0
	AvoidServerWildcardBug	Set to 1 if running against RDBMS 7.3.2 with NLS_LANG set to Japanese_Japan.JA16SJIS to avoid certain list box appearing empty	0
	RdbFastSQLOff		0
Query Prediction and Performance	QPPEnable	Uses query prediction/performance (QPP) if set to 1	1 (0 = false, 1 = true)
	QPPCreateNewStats	Records new statistics if set to 1	1 (0 = false, 1 = true)
	QPPLoadStatsByObjectUseKey	Records statistics for same objects first if set to 1	1 (0 = false, 1 = true)

Table 3–2 Registry settings stored in the Preferences file

Affected Feature	Preference Item Key Name	Description	Default/Values
	QPPUseCpuTime	Query prediction uses CPU time within its algorithm	1 (0 = false, 1 = true)
	QPPAvgCostTimeAlgorithm		2
	QPPMaxObjectUseKey	Affects the amount of statistics to cache in memory for query prediction	30
	QPPCBOEnforced	Will use cost-based optimizer if set to 1. Will use default optimizer if set to 0.	1
	QPPObtainCostMethod		1
	QPPMinCost	Only records or uses statistics with a cost greater than this value	0
	QPPMaxStats	Only loads this many previous statistics	500
	QPPMinActCpuTime	Only records or uses statistics with a CPU time greater than this value	0
	QPPMinActElapsedTime	Only records or uses statistics with an actual elapsed time greater than this value	0
	QPPMinEstElapsedTime	Only records or uses statistics with an estimated elapsed time greater than this value	0
	UseOptimizerHints	Will add optimized hints to SQL if set 1	0
	QuerySQLFastFetchLevel		1
	SQLTrace	False (off)	0
	Crosstab Layout	Title	Displays titles that were created in Discoverer 3.1 worksheets
		Cell XGridline	Show horizontal gridlines
		Cell YGridline	Show vertical gridlines

Table 3–2 Registry settings stored in the Preferences file

Affected Feature	Preference Item Key Name	Description	Default/Values
Table Layout	Axis Style	Crosstab axis position	2 (1 = inline, 2 = out-line)
	Title	Displays titles that were created in Discoverer 3.1 worksheets	1 (0 = no, 1 = yes)
	Cell XGridline	Show horizontal gridlines	0 (0 = no, 1 = yes)
	Cell YGridline	Show vertical gridlines	0 (0 = no, 1 = yes)
	Row Headings	Display row numbers on table worksheets	0 (0 = no, 1 = yes)

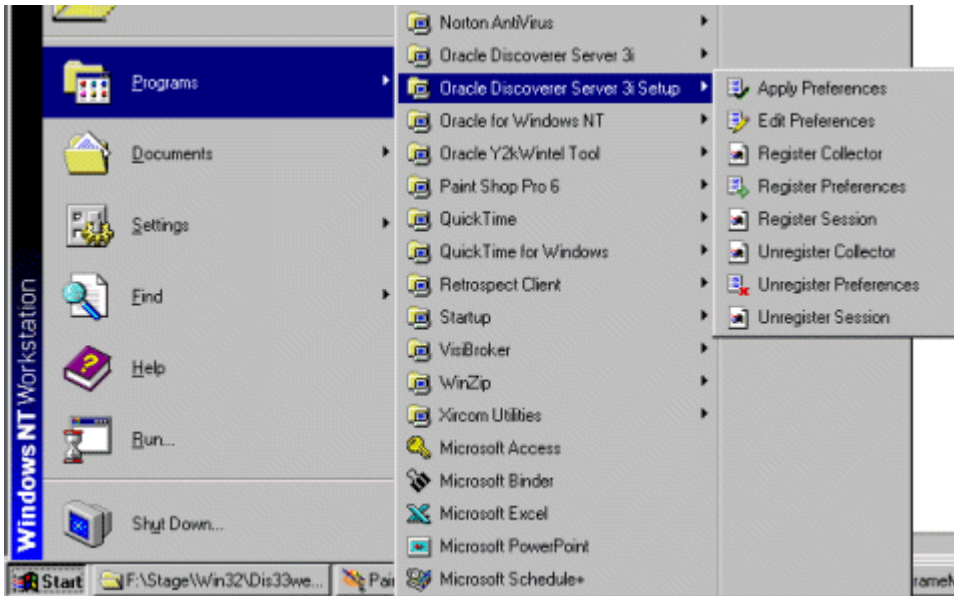
3.4 Registering and Unregistering components

The VisiBroker OAD must be running to register and unregister components. You can register and unregister components using the Program Group menus from the Windows Start menu installed with the Discoverer Server, or using the command line.

3.4.1 Registering and Unregistering from the Windows Program Groups

On the machine where you want to register or unregister components:

1. From the Windows Start menu, choose Programs | Oracle Discoverer Server 3i Setup.



2. Choose the component that you want to register or unregister.

A confirmation screen appears. The following example shows the confirmation for registering the Preferences.

3.4.2 Registering and Unregistering from the Command Line

Use the Run dialog box from the Windows Start menu. You can register components using batch scripts. The batch scripts are located in the <Oracle_home>\Discwb33\util directory of the machine where the components are installed.

3.4.2.1 To Register the Preferences and Session with the OAD

The Preferences and Session components must be registered with the OAD. The OAD will start a new session per connection of the client. For your convenience, scripts are available to help you with registering the Preference and Session components with the OAD.

The scripts are named:

- registerSession.bat
- registerPreferences.bat

In the following example, <Prefix> means a unique instance name.

To register the Session from the command line:

1. Open an MS-DOS window.
2. Change the directory to <oracle_home>\Discwb33\util.
3. Type

```
> registerSession.bat
```

To register the Preferences from the command line:

1. Open an MS-DOS window.
2. Change the directory to <oracle_home>\Discwb33\util.
3. Type

```
> registerPreferences.bat
```

3.4.2.2 To Unregister components from the OAD

You can unregister the Preferences and Session components from the OAD.

3.4.2.2.1 Unregistering the Preferences Component A script is available to help you unregister the Preferences component from the OAD.

To unregister the Preferences component from the OAD:

1. Open an MS-DOS window.
2. Change the directory to <oracle_home>\Discwb33\util.
3. Type

```
> unRegisterPreferences.bat
```

3.4.2.2.2 Unregistering the Session Component A script is available to help you unregister the Session component from the OAD.

To unregister the Session component from the OAD:

1. Open an MS-DOS window.
2. Change the directory to <oracle_home>\Discwb33\util.
3. Type

```
> unRegisterSession.bat
```

3.5 Shutting Down

If you need to perform maintenance, change hardware settings, or perform any other tasks, you should take the server machine off line while working. This prevents users from starting sessions on that server while you work. You can shut down Discoverer servers in two ways:

- Shut down individual server machines
- Shut down the entire Discoverer 3i system

A reminder: You do not need to shut down to edit Discoverer Preferences.

If the machine you want to shut down runs the Discoverer Locator or Preferences, you need to shut down the entire Discoverer 3i system. These components are used to create a session, regardless of which server the Session component is on. Therefore, stopping any of these components affects the entire Discoverer 3i system.

3.5.1 Shutting Down Individual Servers

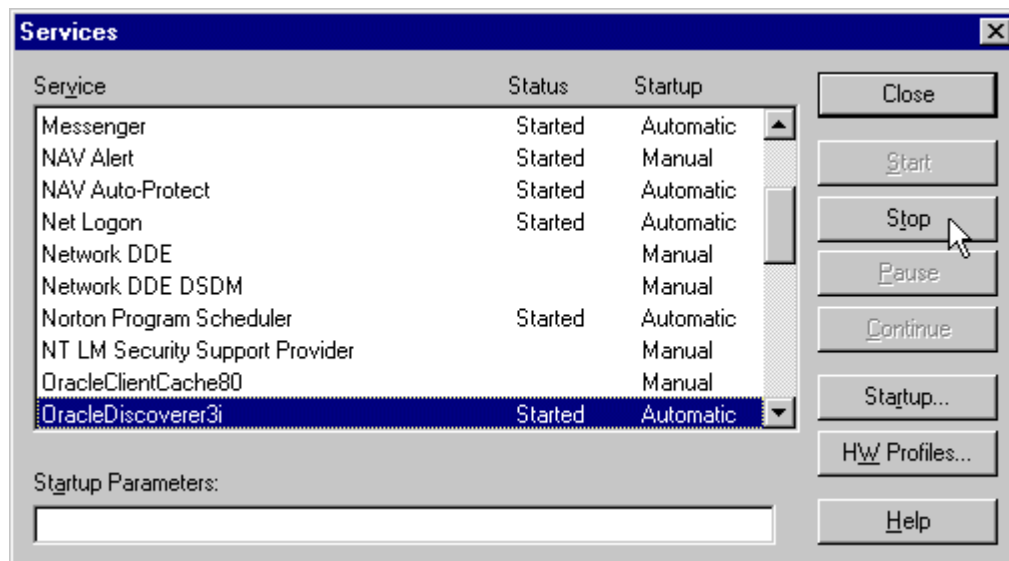
You can shut down a server in two ways: gradually, allowing current users to disconnect when they are ready, or immediately, forcing current users to end their Discoverer 3i session.

3.5.1.1 Shutting Down Individual Servers Gradually

Shutting down a server gradually allows you to prevent new sessions from starting without interrupting users in current Discoverer 3i sessions.

1. On the machine you want to shut down, from the Windows Start menu, choose Settings | Control Panel and then double-click the Services icon.

The Services dialog box appears.



2. Select OracleDiscoverer3i service and click the Stop button.

The Service stops the CORBA services and the Locator component, preventing any new sessions from being started on this machine. Sessions in progress are not affected by shutting down the Service. Thus, users will not be interrupted while working.

After all current users have disconnected from their sessions, you can perform your maintenance tasks. If you want to register or unregister components, the OracleDiscoverer3i service must first be restarted.

To check that all users have disconnected, open the Windows Task Manager and be sure no instances of the Session executable (**dis33ws.exe**) are running.

3.5.1.2 Shutting Down Individual Servers Immediately

An immediate shut down stops new user sessions from starting and stops the current sessions. To do this, you stop the OracleDiscoverer3i service on the machine (to prevent new sessions from being started), then you stop the sessions currently running.

1. On the machine you want to shut down, from the Windows Start menu, choose Settings | Control Panel and then double-click the Services icon.

The Services dialog box appears.

2. Select OracleDiscoverer3i service and click the Stop button.

3. Press Ctrl + Alt + Del and open the Windows Task Manager.
4. Choose dis33ws.exe.
5. Click End Task.
6. Repeat steps 3 and 4 for each session (dis33ws.exe) running in the Task Manager.

3.5.2 Shutting Down the Entire Discoverer 3i System

To shut down the entire Discoverer 3i system, shut down individual machines in a specific order.

You can shut down the entire Discoverer 3i system in two ways: gradually, allowing current users to disconnect when they are ready, or immediately, forcing current users to end their Discoverer session.

3.5.2.1 Shutting Down the Discoverer 3i System Gradually

Shutting down the Discoverer 3i system gradually allows you to prevent new sessions from starting but letting current users complete their sessions.

To shut down gradually, you stop the Oracle Discoverer NT service on each server and then let users finish their sessions.

1. On each server, from the Windows Start menu, choose Settings | Control Panel and then double-click the Services icon.
2. Select Oracle Discoverer3i service and click the Stop button.

The Service stops all the server components that it started. The Service stops the CORBA services and Locator component depending on the machine you're working on. If the Locator is on a machine, stopping the Service prevents any new users from logging in.

Sessions in progress are not affected by shutting down the Service. Thus, users will not be interrupted while working.

3. Press Ctrl + Alt + Delete and open the Windows Task Manager.

Warning: Do not shut down preferences until all sessions are stopped. Shutting down preferences while sessions are active can cause problems with active sessions.

4. Choose dis33pr.exe and click End Task to shut down the Preferences.

When all of the current users have completed their sessions, the Discoverer server shuts down.

3.5.2.2 Shutting Down the Discoverer 3i System Immediately

Shutting down Discoverer Server immediately stops new sessions from being started and stops any current sessions.

1. On each server, from the Windows Start menu, choose Settings | Control Panel and then double-click the Services icon.
2. Select OracleDiscoverer3i service and click the Stop button.

On each machine running a current session:

3. Press Ctrl + Alt + Del to open the Windows Task Manager.
4. Choose dis33ws.exe.
5. Click End Task.
6. Repeat steps 3 and 4 for each session (dis33ws.exe) and preferences (dis33pr.exe) running in the Task Manager.

3.6 Adding and Removing Servers

Adding or removing server machines from your Discoverer 3i configuration is easy and can be done at any time.

3.6.1 Adding a Server

Just as you did when you installed Discoverer 3i, you have to install the appropriate software onto the new server, then start the new server.

Follow the instructions in Section 2.3.1.3.3, “To Install Discoverer Server Components on Additional Machines”. Add the new server’s IP address or machine name to the Prefs.txt file on the server where the Preferences component is installed.

3.6.2 To Permanently Remove a Server

Disabling the Discoverer NT service or changing its Startup to manual effectively removes the machine from the Discoverer 3i network. You do not have to uninstall any software. However, you must also edit the Prefs.txt file to remove the server’s IP address from it. See Section 2.3.4.1, “Editing the Discoverer Server Preferences” for details about editing the Prefs.txt file.

1. From the Windows Start menu, choose Programs | Oracle Discoverer Server 3i Setup | Edit Preferences.

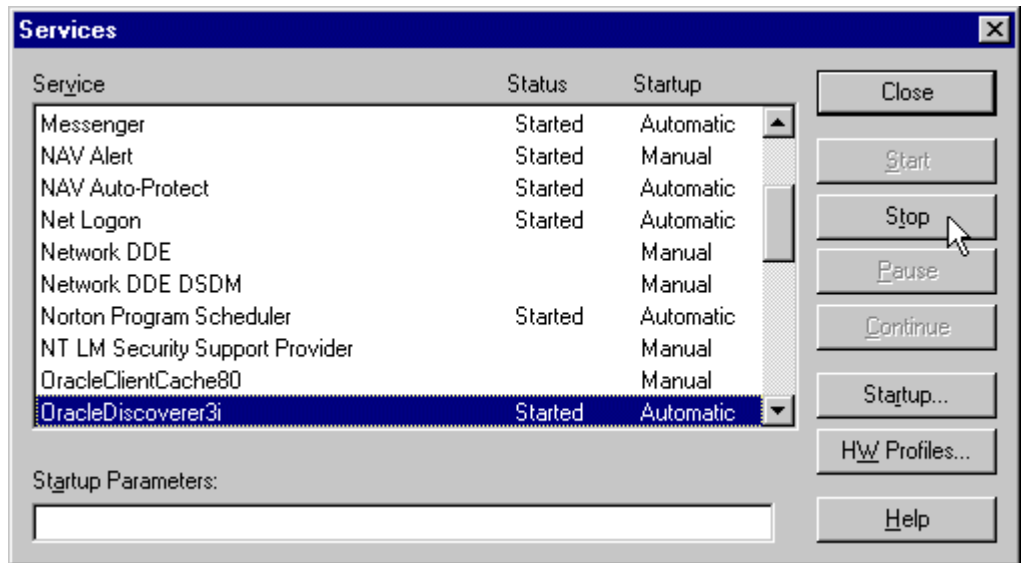
The Prefs.txt file opens in Notepad.

2. Remove the machine’s IP address from the Preferences file. Save the Preferences file and close Notepad.
3. Choose Start | Programs | Oracle Discoverer Server 3i Setup | Apply Preferences.
4. From the Windows Start menu, choose Programs | Oracle Discoverer Server 3i Setup again and select a component on that server that you want to unregister.

For example, to unregister the Session component, choose Unregister Session.

5. Repeat for each component that you want to unregister.
6. Now from the Windows Start menu, choose Settings | Control Panel and double-click the Services icon.

The Services dialog box appears.



7. Select OracleDiscoverer3i service and click the Startup button.

The Service dialog box appears.

8. In the Startup Type section of the Service dialog box, click Manual or Disabled. Click OK.

Now, the server will not automatically start the Discoverer NT service and therefore will not be part of the Discoverer 3i configuration.

Note: To temporarily remove a server, shut down the Discoverer NT service.

3.7 How to Run the Locator on Another Machine

You can run the Locator on another machine other than the HTTP server. This configuration can be useful if your HTTP machine is not a Windows NT 4.0 or Solaris machine. The key to running the Locator on another machine is the "locator.ior" file.

When the Locator starts, it generates the Locator.ior file which the VisiBroker components (OAD and SmartAgent) use to find the Locator. Therefore, you can run the Locator on another machine by copying the locator.ior file from its current Discoverer Server directory

to the Discover 3i Viewer Edition directory where the servlet is located on the HTTP server. The Locator will then run on the first machine.

1. Use the Oracle Installer to custom install the Locator onto a Windows NT 4.0 machine as described in Section 2.3.1.5, “Custom Installation”. The Locator component installs into the directory <oracle_home>\discwb33\util.
2. On the machine where you just installed the Locator, reboot. Rebooting launches the Oracle Discoverer Server 33 and automatically starts the Locator.

Starting the Locator generates a locator.ior file in this directory

3. Copy the locator.ior file to the HTTP server and place it in the <root or virtual path>\Discwb31\disco3iv directory.

Note that you must copy the locator.ior file to the HTTP server every time you re-boot to start the Locator on a server not being used as the HTTP server.

3.8 Frequently Asked Questions

What environment variables are set?

The Discoverer Server sets two environment variables for the VisiBroker products when installed:

```
VBROKER_JVM = <oracle_home>/jsf11728o/bin/jre.exe  
VBROKER_TAG = -D
```

The Discoverer Server does not modify the CLASSPATH. The PATH variable is updated with:

```
PATH = $Oracle_Home\bin;$ Oracle_Home\vbroker\bin;%PATH%
```

This minimizes any conflict with other products.

What happens when the Locator or Preferences components stop running?

When the Locator goes down, no more users can log in to the system until it comes back up. Existing sessions are not affected.

The Locator is designed so it does not need to be shut down even when you edit Preferences. By default the Locator will pick up the edited values when the next client is connected.

Similarly, if the Preferences goes down, the Locator will continue to function and sessions already in progress are not affected. When the Preferences is brought back up, the Locator will bind to the Preferences again.

What happens if a server is not running?

If a machine's IP address or machine name is in the pref.txt file, but the machine is not up and running or the Locator encounters a problem starting a new session on that machine, the Locator automatically cycles to the next machine in the list of IP addresses (or machine names) in the Preferences file. The Locator starts a new session on that next machine. Only when all machines in the list have failed does a session fail to start.

When all machines in the list fail, the Locator will do a broadcast to find out if any machine in the subnet can start a session. If that also fails then the Locator will fail.

What do I need to do when I get a network error?

When the Discoverer 3i receives a network exception during login, the server is most likely the cause. Check the following:

- Are there any directories or jar files in the CLASSPATH or PATH that might interfere with Discoverer 3i? Discoverer 3i uses VisiBroker CORBA V3.2 and JDK 1.2.

- Make sure the Locator is up and running. Did you see any error messages in the locator.log file? Make sure the locator.ior file is in the DiscWb33\applet directory.
- Make sure the VisiBroker SmartAgent and OAD are up and running and that a new session can be started.
- Make sure the Preferences component is up and running. To see that the Preferences component is up and running use the Windows Task Manager and make sure that Dis33pr.exe is running.

What do I need to do when I get ORA-12154 TNS: Could not resolve service name?

This is an Oracle error that appears when the Session cannot connect to the database alias specified in the connect field. Check that the:

- database aliases are in the tnsnames.ora file
- database alias exists in the tnsnames.ora file on every machine that runs sessions.

Hint: If you have SQL*Plus or another Oracle product running on that machine, try connecting to the database with that product or SQL*Plus.

What do I need to do when I get a message that the Locator cannot bind to the Preferences?

If the Locator cannot bind to the Preferences, check the following:

- Is the Preferences component up and running?—use the Windows Task Manager to see if the Preferences component is running. See Section 3.1, “Using Discoverer’s NT Service” to restart the Preferences component.
- Is a SmartAgent running on the subnet?—open an MS-DOS window and on the command line, type `osfind` to see a list of agents, OADs, and other registered components running on the subnet. Note that the agents are listed first. If the SmartAgent is not running, see Section 3.1, “Using Discoverer’s NT Service” to restart it.
- Is the Preferences component installed?—to see that the Preferences component is up and running use the Windows Task Manager and make sure that Dis33pr.exe is running.
- Is the Preferences registered with its OAD?—see Section 3.2, “Seeing Registered Discoverer Server Components” to determine if the Preferences component is registered. This must be done on the machine on which the Preferences component was installed. If the Preferences component is not registered, see Section 3.4.2.1, “To Register the Preferences and Session with the OAD”.
- Is the Preferences machine on the same subnet as the Locator machine and the Session machines?—open an MS-DOS window and on the command line, type `osfind` to see a list of agents, OADs, and other registered components running on the subnet. Note

that the agents are listed first. The Preferences component must be installed on the same subnet.

- Is the Preferences file corrupted?—you cannot directly determine from the file that it is corrupted. To check the file, save a copy, then delete the Preferences and use the defaults to run a session. If the session runs properly with the default Preferences, the Preferences file was probably corrupted.

To test if the Prefs.txt file is corrupted:

1. Save a copy of the pref.txt file.
2. Delete the original pref.txt file.
3. From the Windows Start menu, choose Run | Regedit.
4. Find the registry key at
HKEY_CURRENT_USER\software\oracle\WebDisco 3i.
In Discoverer version 3.3, the key is in HKEY_LOCAL_MACHINE.
5. Delete that registry key.
6. Copy the file: “<orahome>\DISCWB31\util\defaults.txt” to “prefs.txt.”
7. Choose Start | Programs | Oracle discoverer Server 3i Setup | Apply Preferences.
8. Run a Discoverer session. If it runs correctly, the original prefs.txt file was probably corrupted.
9. Quit the session.
10. Delete the saved copy of the original prefs.txt file because it contains the corrupted elements.
11. Reset the Preferences as described in Section 3.3, “Editing the End User Preferences”.

Accessing Oracle Discoverer 3i Viewer Edition From Other Web Applications

Oracle Discoverer 3i Viewer Edition can be accessed from other web applications by specifying a combination of parameters in the URL. Rather than having your end users log in, choose a workbook, and worksheet, you can specify a URL that starts the Oracle Discoverer 3i Viewer Edition for them. You can explicitly specify the settings that you want; for example, you can specify which workbook and worksheet you want to open and which parameter values to use.

This means you can embed live Discoverer reports directly onto your web site pages simply by specifying the details in a URL. When the link is clicked the database is queried and the latest data is displayed in HTML.

After you create this URL, you can give it to end users to type into their Web browser. Or you can add the URL as a link on your company's Intranet site so that end users can make a specific database query with a single click.

In addition, you can also specify an end user's Applications Responsibility in this same URL.

4.1 Using Parameters in URLs

Using parameters in a URL can be used to specify specific factors when accessing Oracle Discoverer 3i Viewer Edition from other applications it saves your end users time and gives you control over the data they use.

You can specify username, database, EUL, workbooks, worksheets and worksheet pages through parameters placed in the URL. Passwords are generally not displayed in the URL for security reasons.

4.1.1 Specifying username, database

Format for each parameter is:

&us=<username>

&db=<databasename>

`http:mywebserver/disco3iv?us=<username>&db=<databasename>`

4.1.2 Specifying display of the Applications User Checkbox in Connect Dialog

You can configure the disco3iv.xml file so that the connect dialog enables or disables display of the Applications User checkbox:

For details see the configuration file located in `%3IV_ROOT_PATH%\html\disco3iv.xml` for details

See also Section 2.3.4.4.2, “Specifying display of the Applications User Checkbox in Connect Dialog,”

4.1.3 Specifying a workbook in a URL:

Format for parameter is:

&wb=<wkbkname>

You **MUST** also specify the username and database name (see above). The order used is not important:

`http://myserver/disco3iv?us=<username>&db=<database-name>&wb=<workbookname>`

An Example is:

`http://myserver/disco/disco3iv?us=qstats&db=disco&wb=nobugs`

4.1.4 Specifying a worksheet

This is similar to workbook above.

Format for parameter is:

&ws=<worksheetname>

You must also specify the workbook name, username and database name. These parameters do not have to be in a specific order but they must be entered after the question mark?:

```
http://mywebserver/disco3iv?us=<username>&db=<database-  
name>&wb=<workbookname>&ws=<worksheetname>
```

An Example is:

```
http://myserver/disco/  
disco3iv?us=qstats&db=disco&wb=nobugs&ws=Sheet+1
```

4.1.5 Specifying worksheet parameters

Format for parameter is:

```
&qp_<parameter_name>=<parameter_value>
```

You must also specify the workbook, worksheet name, username and database name. These parameters do not have to be in a specific order but they must be entered after the question mark?:

```
http://myserver/disco3iv?us=<username>&db=<dbname>&wb=  
<workbookname>&ws=<worksheetname>&qp_<parameter_name>=  
<parameter_value>
```

An Example is:

```
http://myserver/disco/  
disco3iv?us=video33&db=video33&wb=wb1&ws=ws2&qp_City=  
Denver&qp_City=Los+Angeles&qp_Year=1995
```

The query string specifies Denver and Los Angeles as values for the City parameter and 1995 as the value for the Year parameter for the worksheet with id ws2, in the workbook with the id wb1, in the database - name video33 with user name video33.

4.1.6 Specifying a page number

This is similar to worksheet above.

Format for parameter is:

```
&pg=<pagenumber>
```

You must also specify the workbook, worksheet name, username and database name. These parameters do not have to be in a specific order but they must be entered after the question mark?:

```
http://myserver/disco3iv?us=<username>&db=<dbname>&wb=<work-  
bookname>&ws=<worksheetname>&pg=<pagenumber>
```

An Example is:

```
http://myserver/disco/  
disco3iv?us=video33&db=video33&wb=wb1&ws=ws2&pg=2
```

The query string specifies the second page in worksheet with id ws2, in the workbook with the id wb1, in the database - name video33 with user name video33.

Note: If the servlet was supplied this query string the user would be challenged for a password, before opening the worksheet.

Customizing Oracle Discoverer 3i Viewer Edition

Oracle Discoverer 3i Viewer Edition is easily customized to fit in with your web site look and feel, to incorporate your companies logo or other artwork, or to build custom Discoverer applications for the web.

This chapter covers the following areas:

- Using Oracle Discoverer 3i Viewer Edition for customized web applications
- Customization Examples

5.1 Using Oracle Discoverer 3i Viewer Edition for customized web applications

Customize the general appearance

The appearance of Oracle Discoverer 3i Viewer Edition can be customized by specifying HTML formatting attributes in a single customization file. Fonts, colors and graphics are all easily changed by anyone familiar with HTML formatting.

Customize the application

Oracle Discoverer 3i Viewer Edition can be used to build complete custom Web applications or deliver data to other middle tier web systems. It uses industry standard XML to represent data and application state, and the XSL stylesheet language to format the User Interface. Standard XSL tools can be used to customize the User Interface or to produce a complete embedded Business Intelligence application.

How the HTML is produced

All the HTML generated by Oracle Discoverer 3i Viewer Edition is produced as a result of combining XML, which describes the information available, with XSL which defines how that information should be represented in HTML.

The XSL configuration file defines simple attributes, such as the fonts and colors to use, but it also defines the layout of each page, and the interactions with the user. By customizing the XSL, a specific Discoverer Application can be built and delivered on the Web.

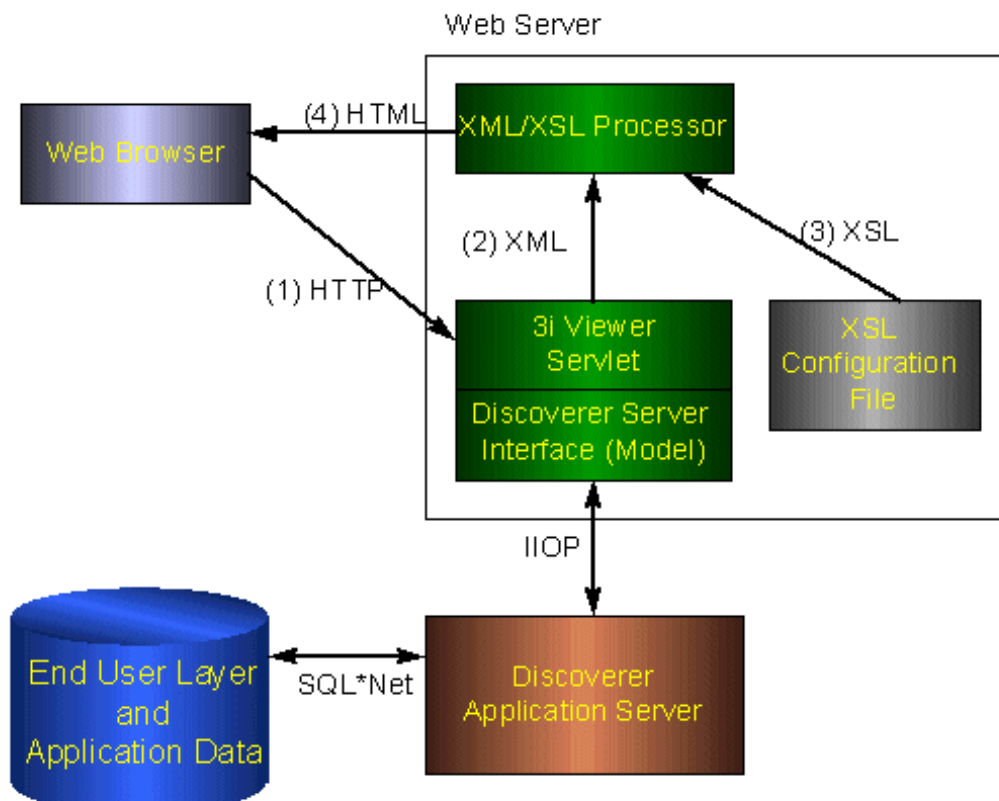


Figure 5–1 - Oracle Discoverer 3i Viewer Edition HTML Generation using XSL/HTML

5.1.1 Steps to Generate the html needed to build a specific Discoverer Application

5.1.1.1 Step 1 Browser sends URL

After login, let's assume a Discoverer Viewer has asked for a list of workbooks that they are allowed to open in order to do some analysis of their business. The url issued is

```
http://ukp14910.uk.oracle.com/disco/disco3iv?us=video&db=Disco
```

The URL specifies the machine the servlets are installed on, and the username and database connection string to use. The password is not normally shown on the URL for security reasons.

5.1.1.2 Step 2 XML generation

The URL is processed by the Discoverer servlets, and the Discoverer server is instructed to check the security setting for this user and return details of the workbooks that this user is allowed to access. The security settings are held in the End User Layer tables in the database. After this information is returned from the server, the servlet generates the following XML:

```
<?xml version="1.0"?>
<?xml-stylesheet type="text/xsl" href="example1.xsl"?>
<discoverer version="3.3.48.17" login_method="discoverer">
  <request source="http://ukp8344.uk.oracle.com/servlets/viewer">
    <command name="_act">Connect</command>
    <command name="db">disco</command>
    <command name="in">dwb</command>
    <command name="_in">dwb</command>
    <command name="lc">true</command>
    <command name="us">VIDEO</command>
    <command name="JServSessionId">3fb75a688d4d3c68.97.951319520796</command>
  </request>
  <account>
    <user>VIDEO</user>
    <database>disco</database>
    <eul default="true" name="VIDEO">
      <workbook name="Annual Sales Report" ref="Annual+Sales+Report">
        <description>Shows yearly and quarterly sales of products</description>
      </workbook>
      <workbook name="Store and Band Analysis" ref="Store+and+Band+Analysis">
        <description>Shows sales by Store, broken into sales bands</description>
      </workbook>
    </eul>
  </account>
</discoverer>
```

```
</workbook>
  <workbook name="Video Sales Analysis" ref="Video+Sales+Analysis">
    <description>General purpose analysis of the Business </description>
  </workbook>
</eul>
<option name="gpw" enable="false">60</option>
<option name="qrl" enable="false">10000</option>
<option name="qtl" enable="false">1800</option>
<option name="msa" enable="false">60</option>
<option name="qif">250</option>
<option name="qll">15</option>
<option name="aq">true</option>
<option name="rv">NULL</option>
<option name="ftd">true</option>
<option name="rpp">25</option>
</account>
<export name="xls" format="application/vnd.ms-excel">Microsoft Excel Workbook
(*.xls)</export>
<export name="htm" format="text.html">Hyper-Text Markup Language (*.htm)</
export>
<export name="txt" format="text.plain">Text (Tab delimited) (*.txt)</export>
<export name="csv" format="text.plain">CSV (Comma delimited) (*.csv)</export>
<export name="prn" format="text.plain">Formatted Text (Space delimited)
(*.prn)</export>
<export name="dcs" format="text.plain">DCS (Express Format) (*.dcs)</export>
<export name="dif" format="application/vnd.ms-excel">DIF (Data Interchange
Format) (*.dif)</export>
<export name="slk" format="application/vnd.ms-excel">SYLK (Symbolic Link)
(*.slk)</export>
<export name="wks" format="application/vnd.ms-excel">WKS (Lotus 1-2-3)
(*.wks)</export>
</discoverer>
```

```
<discoverer3iv version="3.3.45.08" state="login" url="http://
```

You can see information about three workbooks being returned - Store and Band Analysis, Video Sales Analysis and Annual Sales Report. Note there is NO information in the XML about how these workbooks names and descriptions should be displayed to the user, this is the function of the XSL file.

5.1.1.3 Step 3 Apply XSL

XSL is the industry standard stylesheet language defined by the World Wide Web Consortium. It allows a selection of elements from an XML file to be combined with an HTML template to generate HTML output for a Web Browser. The Oracle Discoverer 3i Viewer

Edition User Interface is entirely defined in XSL, which means that it can be customized or copied to define alternative User Interface styles using standard Web development tools such as HTML and XSL editors. The XSL and XML are combined in an XSL processor, and HTML is generated.

5.1.1.4 Step 4 Generate HTML

Given the XML above, the standard Oracle Discoverer 3i Viewer Edition XSL configuration file would result in HTML being generated, which is then sent back to the browser in response to the initial URL. In Oracle Discoverer 3i Viewer Edition, the HTML generated does not use frames or javascript, and therefore makes minimal demands on the browser or internet device used. It also means that it is easy to integrate Oracle Discoverer 3i Viewer Edition with other Web Applications or Portals.

5.2 Customization Examples

This section will help you carry out a customization of the Oracle Discoverer 3i Viewer Edition user interface where you can either modify basic attributes such as fonts, colors and graphics or create your own look and feel with a custom user interface.

5.2.1 Files needed for customization

The files needed to carry out either a **Quick** or a **Full** customization can be found under the `\html` directory shown below. These directories are created during the installation of Oracle Discoverer 3i Viewer Edition in the root directory of the web server.

```
\disco3iv
  disco3iv.jar
  \html
    disco3iv.xml
    disco3iv.xsl
    errors.xsl
    functions.xsl
    gui_components.xsl
    page_layouts.xsl
    style.xsl
    \demos      Video Stores Demo
    \help       HTML help files
    \images     User interface and help
  \ doc        Installation/Administration Doc
```

5.2.2 Quick Customization

Many users want to be able to simply modify fonts and colors to fit in with their corporate standards, or to display the company logo to add branding.

These global changes can be made in a single XSL stylesheet file 'style.xsl' (found in the servlet directory `\disco3iv`) that defines special 'tags' for each style that can be modified.

You will need to be able to access the XSL files on the server.

5.2.2.1 Quick customization attributes

Customizable attributes in the *style.xsl* file

- Company Logo
- Text Color
- Headings

- Fonts
- Styles
- Links
- Images

5.2.2.2 Quick customization steps

To complete a Quick customization, take the following steps:

- Locate the file *style.xsl* in the servlet directory `\disco3iv\html`.
- Open *style.xsl* in a text editor.
- Edit text within the `<angle brackets>` for each variable you want to change. For further information, read the detailed comments inside the file itself.
- Save your changes and exit.

5.2.2.3 Example of editing the style.xls file

Further comments on how to edit this file are included within the file itself.

To insert a logo

```
<xsl:variable name="logo_src"> </xsl:variable name>
```

is changed to

```
<xsl:variable name="logo_src"> http:www.mycompany.com/images/mylogo.gif </xsl:variable name>
```

To change the color of the text :

```
<xsl:variable
```

```
name="text_color">#000000</xsl:variable>
```

is changed to add the appropriate color code.

Many global style changes can be made in this way, but the overall operation of the User Interface will remain unchanged.

Another way of customizing Oracle Discoverer 3i Viewer Edition is by using XSL, which allows a complete customized application to be made, as the next section explains.

5.2.3 Full Customization

This section provides information to help you create a fully customized user interface to the Oracle Discoverer 3i Viewer Edition Servlet. Creating your own ‘look and feel’ with a custom user interface.

It consists of the following topics:

- Background
- Prerequisites
- File Structure
- Servlet Programming Interface
- Customizing Look and Feel - XML/XSL Example
- Customization Summary

5.2.3.1 Background

Before you start creating a custom interface to the Oracle Discoverer 3i Viewer Edition Servlet, it is useful to understand how it works.

The following steps describe the flow of data that occurs when a request is made:

- The request is sent from the client (web browser) to the servlet using HTTP. Usually the request is encoded on the URL but the servlet also supports GET and POST actions.
- The servlet interprets this request and retrieves the necessary data from the Discoverer Server.
- The servlet reformats the data returned from the Discoverer Server as XML.
- This XML file is sent to the XSLT processor which transforms it into the final output (usually HTML) using XSL templates.
- The output is then streamed back to the client that originally made the request.

This model enables a clean separation between the application logic (handled by the servlet) and the presentation logic (handled by the XSL files). It is therefore possible to completely change the appearance of the user interface by editing the XSL files.

Figure 5–2 illustrates the data flow in Oracle Discoverer 3i Viewer Edition.

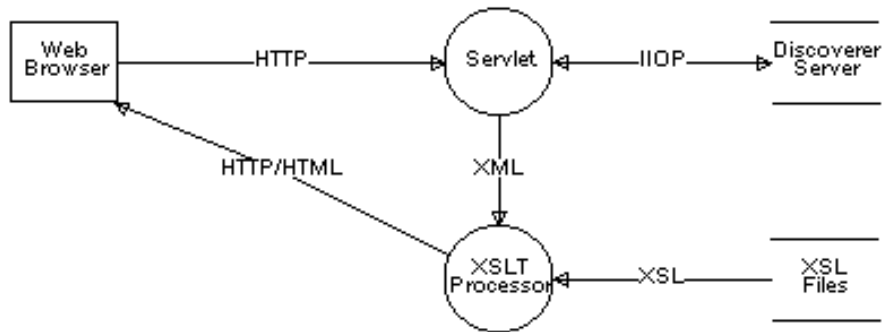


Figure 5-2 Oracle Discoverer 3i Viewer Edition Data Flow

5.2.3.2 Prerequisites

To be able to create your own custom user interface for Oracle Discoverer 3i Viewer Edition, you need the following prerequisites:

- A knowledge of HTML
- A knowledge of XML, XSLT & XPath
- Access to the XSL files on the server.
- Access to the Servlet Configuration File

5.2.3.3 File Structure

The Servlet Configuration File specifies the name and location of the XSL file that should be applied to the XML generated by the servlet. This XSL file imports further XSL files which together contain all the templates that required for the presentation logic. These files are described below.

5.2.3.3.1 disco3iv.xsl

This is the master XSL file. It performs the following functions:

- Gets the values of certain parameters set in the Servlet Configuration File.
- Gets the values of "Presentation" commands sent from the client
- Imports the other XSL files.

- Examines the XML and chooses the most appropriate page layout for displaying the information.

5.2.3.3.2 page_layouts.xml

This file contains the definitions for each type of page that can be displayed. Each definition consists of a series of GUI components (in the order that they should appear on the page).

The following page layouts have been defined:

- Connect Page
- Reconnect Page
- Choose Oracle Applications Responsibility Page
- Options Page
- Choose Workbook Page
- Prepare to Run Query Page
- Modify Query Parameters Page
- Query Progress Page
- Data Available Page
- Export Worksheet Page

5.2.3.3.3 gui_components.xml

This file contains each of the GUI components (called by page_layouts.xml) that are used to build a page. The following list provides a few examples of GUI components:

- Page Title
- Page FooterList of Worksheets
- Options Form
- Query Progress Meter

5.2.3.3.4 style.xml

This file acts as a "stylesheet" by defining how certain text (such as headings) and graphics should appear. For more information, see the comments inside the file itself.

5.2.3.3.5 functions.xml

This file contains a set of functions that perform common tasks. For example, building the href attribute when creating a hypertext link.

5.2.3.3.6 errors.xsl

This file interprets any errors, warnings or messages generated by the Discoverer Server and displays more user friendly versions.

5.2.3.4 Servlet Programming Interface

5.2.3.4.1 Receiving data from the servlet

There are two methods that the servlet can use to pass information to the XSL files:

- **XML**
The XML contains all the information returned by the Discoverer Server as a result of the end user's request.
- **XSL Parameters**
This method is used to pass entries in the Servlet Configuration File and "Presentation" commands from the URL to the XSL.

5.2.3.4.2 Sending data to the servlet

As mentioned above, the servlet is driven by the commands it receives from the the client (web browser). These commands are sent using HTTP by calling the servlet with parameters on the URL or by creating HTML forms that define the servlet as the "action".

You can create your own "Presentation" commands by simply preceding it with an underscore (_) character. Any commands that begin with an underscore character are passed straight through to the XSL files as an XSL parameter. For example, specifying `_filter=sales` as a parameter on the URL results in the servlet setting the XSL parameter `"url_filter"` to `"sales"`. You could use this parameter to filter a list of workbooks.

5.2.3.5 Customizing Look and Feel - XML/XSL Example

XSL customization is best shown with an example. You can use the XML and XSL fragments below to experiment with customization in a Web Browser.

5.2.3.5.1 Step 1 - The XML file

The data is a standard XML file, similar to the example below:

```
<?xml version="1.0"?>
<?xml-stylesheet type="text/xsl" href="example1.xsl"?>
<discoverer3iv version="3.3.45.08" state="login"
```

```
url="http://ukpl4910.uk.oracle.com/disco/disco3iv" login_method="disco_login">
  <account nv="NULL" aq="confirm">
    <user>video</user>
    <database>disco</database>
    <eul>
      <name>VIDEO</name>
      <workbookinfo>
        <name>Store and Band Analysis</name>
        <description>Shows sales by Store, broken into sales bands</
description>
      </workbookinfo>
      <workbookinfo>
        <name>Video Sales Analysis</name>
        <description>General purpose analysis of the Business </description>
      </workbookinfo>
      <workbookinfo>
        <name>Annual Sales Report</name>
        <description>Shows yearly and quarterly sales of products</
description>
      </workbookinfo>
    </eul>
  </account>
</discoverer3iv>
```

It starts by specifying the XML version. The 2nd line specifies the XSL file to be applied to process the data, “example1.xml” and the rest of the file is generated from the Oracle Discoverer 3i Viewer Edition. The first two lines have been added here so you can type the text into a file using a text editor and then open it in a Web Browser to see the results visually as the XSL is changed. Save the file with the extension “xml” if you want to try this.

5.2.3.5.2 Step 2 - The XSL file

The XSL file “example1.xsl” looks like this :

```
<?xml version='1.0'?>
<xsl:stylesheet xmlns:xsl="http://www.w3.org/TR/WD-xsl">
  <xsl:template match="/">
    <HTML>
      <BODY bgcolor="#FFFFFF" link="#663300" text="#000000">
        <b><i>Choose a Workbook :</i></b><P></P>
        <TABLE BORDER="2">
          <xsl:for-each select="discoverer/account/eul/workbook">
            <TR>
              <TD width="242"><font face="Arial"><b><a href="link.htm">
                <xsl:value-of select="./@name"/></a></b></font>
              </TD>
              <TD>
                <xsl:value-of select="description"/>
              </TD>
            </TR>
          </xsl:for-each>
        </TABLE>
      </BODY>
    </HTML>
  </xsl:template>
</xsl:stylesheet>
```

5.2.3.5.3 Step 3 - XML+XSL = HTML

When the XML file is opened in a Web Browser, it reads in the XSL stylesheet and generates HTML which looks like this:

<i>Choose a Workbook :</i>	
<u>Store and Band Analysis</u>	Shows sales by Store, broken into sales bands
<u>Video Sales Analysis</u>	General purpose analysis of the Business
<u>Annual Sales Report</u>	Shows yearly and quarterly sales of products

Figure 5–3 List of workbooks using XML + XSL example

Examining the XSL file shows how the HTML is generated. Again the file starts by specifying the XML version, and the 2nd line says that this file is a stylesheet. The HTML template starts with the <HTML> tag on line 4.

```
<BODY bgcolor="#FFFFFF" link="#663300" text="#000000">
```

This line defines the colors to be used.

```
<b><i>Choose a Workbook :</i></b><P></P>
```

This is just HTML, it sets a bold italic font and inserts the text “Choose a workbook”

```
<TABLE BORDER="2">
```

```
<xsl:for-each select="discoverer/account/eul/workbook">
```

Now an HTML table is started, with a 2 line border. The next line is the first real XSL to appear - it means :

Go through the XML data file and for each workbook tag perform all the following steps until you reach the end tag : </xsl:for-each>

So for every workbook that appears in the XML file the following XSL is processed, and a row is inserted into the HTML table for every workbook found :

```
<TR>
  <TD width="242"><font face="Arial"><b><a href="link.htm">
    <xsl:value-of select="./@name"/></a></b></font>
  </TD>
  <TD>
    <xsl:value-of select="description"/>
  </TD>
</TR>
```

<TR> starts a new row in the table, and <TD defines the table data that is to be inserted for the first column. The width of the column is set to 242 pixels and the font is set to Arial. Next a hyperlink is defined that will go to the file “link.htm” when clicked. In fact in Discoverer 3i this link target is generated dynamically, but it is shown as a static link here for simplicity.

```
<xsl:value-of select="./@name"/></a></b></font>
```

This XSL line inserts the text from the XML file for the <NAME> tag under each workbook section.

```
<TD>  
  <xsl:value-of select="description"/>  
</TD>
```

These lines define the 2nd column in the HTML table and insert the text for the workbook description using the <DESCRIPTION> tab in the XML file. So each row in the HTML table will contain the workbook name, made into a link to click on, and the workbook description as text. Since there are three workbooks in the XML file, there will be three rows in the table.

Note that this example is not exactly how the Oracle Discoverer 3i Viewer Edition shows the list of workbooks, it has been simplified here for clarity, but it illustrates how the XSL controls the appearance of the output. Also note that in Oracle Discoverer 3i Viewer Edition, the XML and XSL are combined in the XSL processor on the middle tier, and not in the Web Browser.

5.2.3.5.4 Step 4 - Customize the XSL

We can modify the XSL file to appear as follows:

```
<?xml version='1.0'?>
<xsl:stylesheet xmlns:xsl="http://www.w3.org/TR/WD-xsl">
  <xsl:template match="/">
    <HTML>
      <BODY bgcolor="#FFFFFF" link="#663300" text="#000000">
        <b><i>Choose a Workbook :</i></b><P></P>
        <TABLE BORDER="0">
          <TR>
            <TD width="500" height="100" background="../../images/
disco_banner.gif">
              <font face="Arial"><b>Performance Reports</b></font>
            </TD>
          </TR>
        </TABLE>
        <TABLE border="0">
          <xsl:for-each select="discoverer/account/eul/workbook">
            <TR>
              <TD width="242">
                <a href="link.htm">
                  
                    <xsl:attribute name="alt">
                      <xsl:value-of select="description"/>
                    </xsl:attribute>
                  </img>
                </a>
              </TD>
              <TD>
                <font face="Arial">
                  <xsl:value-of select="./@name"/>
                </font>
              </TD>
              <TD>
                <xsl:value-of select="description"/>
              </TD>
            </TR>
          </xsl:for-each>
        </TABLE>
      </BODY>
    </HTML>
  </xsl:template>
</xsl:stylesheet>
```


When THIS file is combined with the same XML, it appears as :

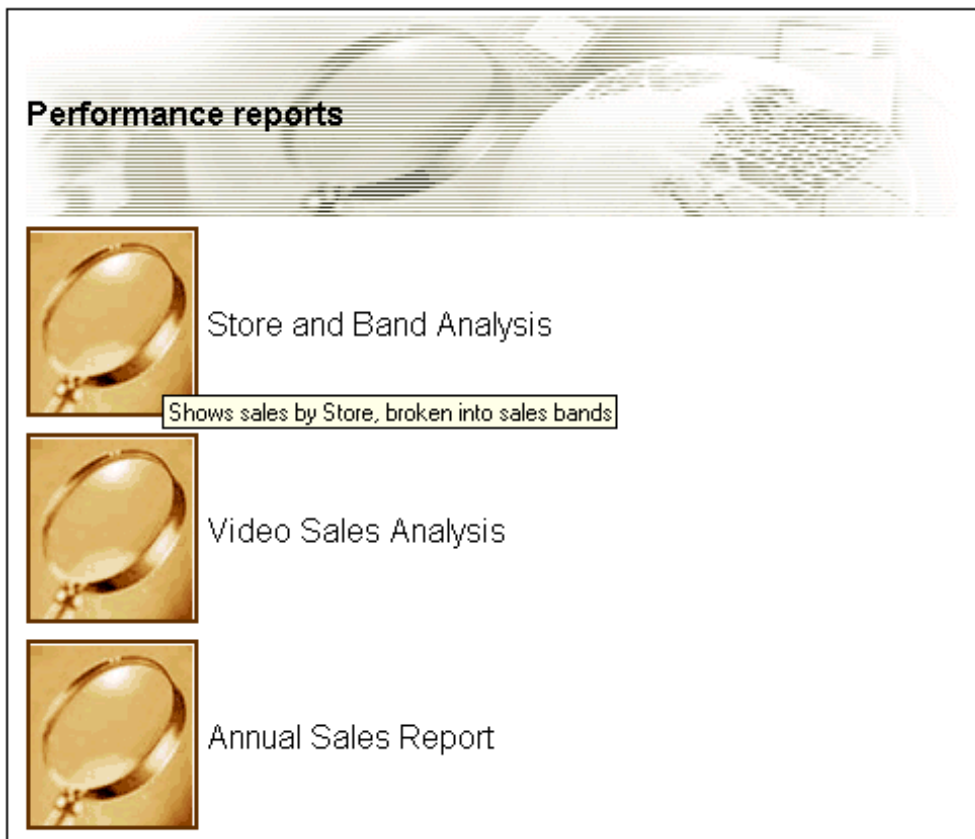


Figure 5–4 List of workbooks using the same XML with a modified XSL stylesheet

Now the appearance of the User Interface is completely different, as it takes on a more graphical look and feel. Instead of text links there are graphical buttons for running the reports, each with a dynamic 'tool tip' that pops up when you position the mouse over the button.

The XSL file is now different :

```
<TABLE BORDER="0">
  <TR>
```

```
<TD width="500" height="100" background="../../images/
disco_banner.gif">
    <font face="Arial"><b>Performance Reports</b></font>
</TD>
</TR>
</TABLE>
<TABLE border="0">
```

These lines create a table and insert a graphic and the heading “Performance Reports”

```
<TABLE BORDER="0">
    <xsl:for-each select="discoverer/account/eul/workbook">
</TABLE>
```

This starts the main table that the workbook names will be displayed in, as before, but now there is no border around the table and the rows are defined differently:

```
<TD width="242">
    <a href="link.htm">
        
            <xsl:attribute name="alt">
                <xsl:value-of select="description"/>
            </xsl:attribute>
        </img>
    </a>
</TD>
```

The first table data column is defined as a hyperlink again, but this time with the image “start1.gif” as an image, rather than a text link. To get a “tooltip” to appear over an image the HTML “ALT” attribute is used.

Normally the ALT attribute is used with a simple text string :

```

```

but since we want the tool tip to be dynamic we generate the ALT tag by getting the text from the <DESCRIPTION> tab in the XML file. The <XSL:ATTRIBUTE> tag is used to do this.

Finally:

```
<TD>
    <font face="Arial">
        <xsl:value-of select="./@name"/></font>
</TD>
```

The second column in the table simply selects the name of the workbook to display, by using XSL to get it from the XML file as before.

5.2.4 Video Stores Demo - an example of an alternative user interface

The Video Stores demo is installed with Oracle Discoverer 3i Viewer Edition and can be viewed following completion of a number of setup steps.

Once Oracle Discoverer 3i Viewer Edition has been fully installed (See the relevant area(s) in Section 2.3, “Installing Discoverer 3i Server,”) you can configure your web server to run the Video Stores demo.

The Video Stores demo illustrates how the Oracle Discoverer 3i Viewer Edition user interface could be customized for an imaginary Video Store chain. You will be able to see the details which lie behind the user interface.

5.2.4.1 What is installed

During installation, the Video Stores demo directory **demos\video**, its sub directories and files are created. The **\demos\video** directory is installed under the **disco3iv\html** directory.

In the Video Stores demo directory **\demos\video** the following files are installed:

- *disco3iv.xml*
You may need to edit this file to ensure that it refers to the correct session name. *The disco3iv.xml file contains configuration information such as where to find images for the user interface (See disco3iv.xml for details).*
- *video.xsl*
You can edit this file to create the new user interface. *This file contains all the definitions which control the ‘look and feel’ of the user interface, such as the fonts, images, background, and spacial details.*
- Workbooks - These are used in the Video Stores Demo (See Section 5.2.4.2, “Set up steps”)
 - *Food and Drink.dis*
 - *Games.dis*
 - *Movies.dis*

The **\demos\video\images** directory contains all the images used in the Video Stores user interface. This is where you would place any new images the user interface needs to use.

5.2.4.2 Set up steps

You need to carry out the following steps:

- Create a Video Stores Demo database user
(See the *Oracle Discoverer 3.1 Administration Guide* for details about how to create a new database user)
- Install the Video Stores Tutorial into the Video Stores Demo user created in the previous step.
(See the *Oracle Discoverer 3.1 Administration Guide*, section on installing the Tutorial for details).
- Using Oracle Discoverer 3.1 Administration Edition, save the three Video Stores Demo workbooks (installed along with the customizable files during the Oracle Discoverer 3i Viewer Edition installation) into the database as the Video Stores Demo user.
- Edit the **video.xml** file to point the **username**, **password** and **database name** to the newly created Video Stores Demo user. The **video.xml** file is currently set up to point to a username **us=videodemo**, password **ps=videodemo** and database **db=disco**. This is the only change that you need to make to **video.xml**.

5.2.4.3 Set up Web Server

The web server needs to be configured with some or all the following details:

- The 'Zone' name
You need to set up a new zone for the Video Stores Demo to specify the location of the `\demos\video\disco3iv.xml` (Video Stores Demo configuration file)

NOTE:(See the relevant section for creating a zone name in the Section 2.3.6, "Configuring Apache Web Server and Servlet Engine" Section 2.3.7, "Configuring Netscape Enterprise Server 4.0 and Servlet Engine" Section 2.3.8, "Configuring JRun Servlet Engine" Section 2.3.9, "Configuring ServletExec 2.2c Servlet"):

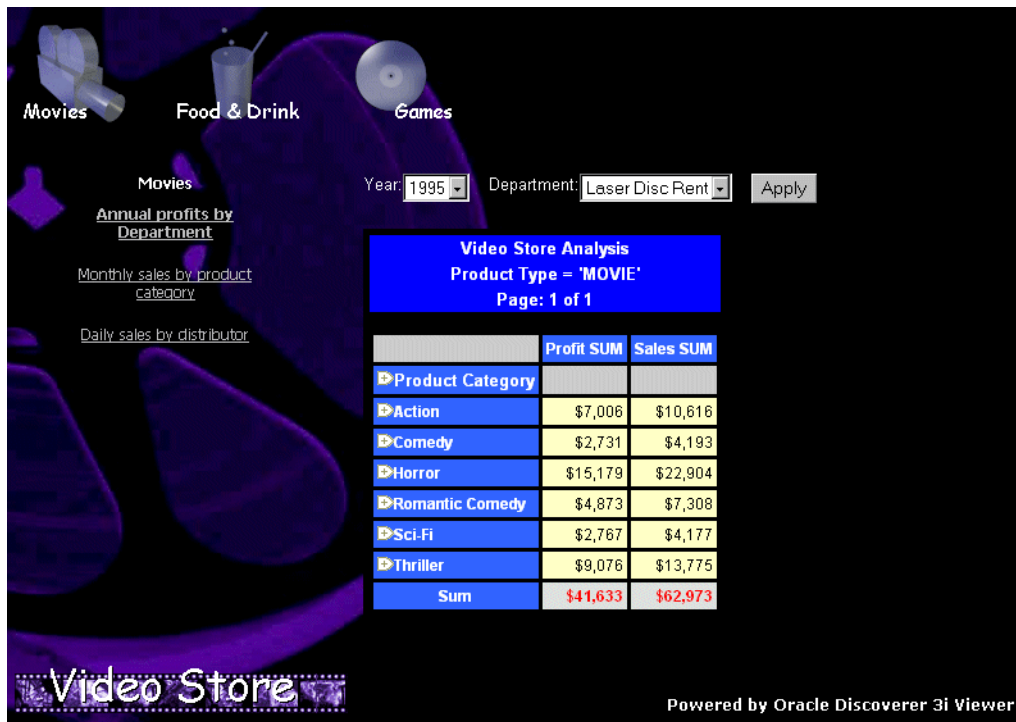
For a detailed description of how to do this see the Section 2.3.5, "Common Configuration,"

5.2.4.4 Run the Video Stores demo

Open a web browser and enter the following URL:

- `http://yourmachineURL/'Your new Video Demo Zone'`

The Video Stores demo will be displayed:



5.2.4.5 Modify the video.xsl file

The video.xsl file located in `|demos\video|` specifies the 'look and feel' for the Video Stores Customization of Oracle Discoverer 3i Viewer Edition.

For example, you can edit the *video.xsl* file to replace any of the images displayed, including the background. You can also specify the workbooks you want to display in the Demo.

The ability to alter almost everything displayed by editing the video.xsl file illustrates how you can create not only a look and feel for your organization, but also define unique views of your data.

5.2.5 Customization Summary

XML and XSL provides a powerful customization environment for Oracle Discoverer 3i Viewer Edition. Simple global formatting changes are made to a single style sheet file, while more sophisticated custom applications can be made by using completely alternative XSL

processing. In this way Oracle Discoverer 3i Viewer Edition provides the way to integrate Business Intelligence directly into other Web applications.

Oracle Discoverer 3i Viewer Edition provides additional capabilities for working seamlessly with Oracle Applications. You can specify NT Registry settings that automate much of the log on procedure for end users.

A.1 NT Registry Settings for Oracle Applications Users

In section Section 2.3.4.1, “Editing the Discoverer Server Preferences”, you edited the Preferences file (pref.txt) with the IP addresses or machine names of each server being used for Discoverer Server. You use the same process to edit the other items in the Preferences file listed in Table Table 5–1, “Registry settings stored in the Preferences file”. The other items in the Preferences file affect default settings that apply to all end users. When a new session starts, the settings in the Preference Repository take affect. You can view the individual end user preference settings from within the Windows NT Registry Editor.

For Oracle Applications end users, there are four specific NT Registry settings that you can use. The table below lists these NT Registry settings. For complete instructions on using all the NT Registry settings, see Section 3.3, “Editing the End User Preferences”.

Table 5–1 Registry settings stored in the Preferences file

Preference Item Key Name	Description	Default/Values
AppsGWYUID	Specifies the public username and password for the AOL security dll	"APPLSYSPUB /PUB"
AppsFNDNAM	Specified the schema in which certain vital Oracle Applications data is stored	"APPS"
ShowUserTypeChoice	Activates an end-user checkbox that allows them to specify whether they want to run Discoverer against an Oracle Application.	1

Table 5–1 Registry settings stored in the Preferences file

Preference Item Key Name	Description	Default/Values
DefaultUserTypeIsApps	Specifies that users run Discoverer by default against an Oracle Application.	1