Introduction to Oracle9i: SQL

40049GC11

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Setup Document for NT

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ORACLE

Terminology and Environment Description

Terminology

Site Administrator – Point of contact responsible for setting up and testing classroom environment. The site administrator is also responsible for explaining setup and login procedures to the instructor.

Client/Server Course – Course conducted with client/server architecture. Database server resides on the CLASSROOM SERVER and client software resides on each CLASSROOM WORKSTATION. Currently, most Oracle8i language courses (Introduction to Oracle: SQL and PL/SQL 8i, Introduction to Oracle for Experienced SQL Users 8i, Advanced SQL 8i, etc.) are client/server courses.

CLASSROOM SERVER – This is the database server for most language courses. Some courses may require middle tier software to be installed.

CLASSROOM WORKSTATION - A PC used by a student to perform practice labs. For the language courses, the client must have all necessary software installed and running locally. For standalone courses, both client and server software must be local. Some courses may require middle tier software to be installed.

N-Tier Course – Courses conducted with a database installed on the CLASSROOM SERVER, client software installed on the CLASSROOM WORKSTATION and the middle tier installed on the CLASSROOM SERVER or CLASSROOM WORKSTATION. Several courses require an N-Tier configuration. Currently all Oracle9i language courses (Oracle9i: Introduction to SQL, Oracle9i: Program with PL/SQL, etc…) are N-Tier courses.

Standalone Course - Course conducted with database server, middle tier server (if required) and client software residing on each CLASSROOM WORKSTATION. Currently all DBA courses (Oracle9i Database Administration Fundamentals I and II, and Oracle9i Database Performance Tuning) are standalone courses.

Specific software requirements for this course can be found in the section titled **Course Specific Description and Information.**

Unless noted otherwise, the CLASSROOM SERVER can be used as the instructor's WORKSTATION.

Documentation

Documentation can be found at the Oracle University On-Site and Partner web site.

Individual course setup documents are also available at this site. These documents provide step by step course setup instructions and tests that verify the setup. This documentation is intended primarily for the site administrators.

In addition, there are instructor read me files which provide guidance on how to conduct each course on Windows NT. These files are intended for instructors, but site administrators should also review them. These read me files include corrections to demo, labs, and solution files.

Location of Course Files

Once downloaded, the course setup files will be extracted from the ZIP file. The extraction will create a directory structure, starting at the highest level of c:\oracourse. For some courses an environment variable %CLASS_SOURCE% is set to the location of the setup files. Default location is

%CLASS_SOURCE%=c:\oracourse

Client/Server Courses

All demo, labs, and solution files are placed on each CLASSROOM WORKSTATION during the course setup. A folder structure is created that is course specific. The following folder structure is an example of a typical Client/Server course.

```
c:\oraclass\demo
            \labs
            \solutions
```

Location of Course Files (continued)

Standalone Courses

All demo, lab, and solution files are placed on each CLASSROOM WORKSTATION during the course setup. Additionally, a database is created which includes all data, control and redo log files. The folder structure is course specific. For example, the folder structure created for the Oracle9i Database Administration Fundamentals I will be as follows:

c:\oraclass\admin\bdump
c:\oraclass\admin\cdump
c:\oraclass\admin\create
c:\oraclass\admin\pfile
c:\oraclass\admin\udump
c:\oraclass\backup\log
c:\oraclass\backup\noarch
c:\oraclass\backup\rman
c:\oraclass\backup\uman
c:\oraclass\demo
c:\oraclass\donttouch
c:\oraclass\network\admin
c:\oraclass\network\log
c:\oraclass\oradata\archive1
c:\oraclass\oradata \archive2
c:\oraclass\oradata\u01
c:\oraclass\oradata\u02
c:\oraclass\oradata\u03
c:\oraclass\oradata\u04
c:\oraclass\oradata\u05
c:\oraclass\oradata \u06
c:\oraclass\student\labs
c:\oraclass\student\solns

Multiple ORACLE_HOMEs

The software that you have installed determines the number of ORACLE_HOMEs created. The following table is provided as an example.

	Oracle Home	Location	Software Installed
1.	*OraHome90*	c:\oracle\ora90	Oracle9i Enterprise Edition
2.	*isuites*	c:\oracle\isuites	Oracle9i Application Server
3.	*dev6i*	c:\dev6I	Developer 6i

A description of the ORACLE_HOMEs required for this specific course can be found in the section titled **Course Specific Description and Information.**

Multiple ORACLE_HOMEs (continued)

For **most** courses each ORACLE_HOME registry value will have the following entries:

ORACLE_SID=DBA
TNS_ADMIN=c:\oracle\ora90\network\admin
SQLPATH=c:\oraclass\code_examples; c:\oraclass\demo; c:\oraclass\labs; c:\oraclass\solutions

The ORACLE_SID entry forces each ORACLE application (SQL*Plus, Form Builder, etc.) installed into that ORACLE HOME to connect to the specified instance by default. In the example above the specified instance is DBA.

The TNS_ADMIN entry forces all requests for service name resolution (system/manager**@V901**) to be resolved from one location. This eliminates the need for sqlnet.ora and tnsnames.ora in multiple ORACLE_HOMEs.

The SQLPATH entry sets the search path for SQL*Plus, eliminating the need to type the full path when issuing the @ or START command in SQL*Plus.

If multiple ORACLE_HOMEs exist, each course setup document specifies which %ORACLE_HOME%\bin should appear first in the PATH variable. To change the order of the PATH variable, right click My Computer, select Properties and edit the PATH System Variable.

NT Services

Running Oracle on the NT platform requires you to be familiar with NT services.

Prior to starting an instance the NT service for the instance must be started. The NT service that allows the instance to be started is created by the ORADIM Utility.

Almost every Oracle executable runs as an NT Service including the Listener, Intelligent Agent, Names Server, Connect Manager, Oracle Management Server, etc., run as NT services. Most of these services are created upon installing the software. To view, start, and stop services go to Start > Settings > Control Panel > Services.

Course Specific Description and Information

Specific Information for Introduction to Oracle9i: SQL

Introduction to Oracle9i: SQL is an N-Tier course. The CLASSROOM SERVER will be the Database Server. Additionally, the CLASSROOM SERVER will also be used as the Middle Tier Server (an HTTP Server with the iSQL*Plus module will be configured). Each CLASSROOM WORKSTATION will be the Client Tier, having SQL*Plus (Client/Server version) installed and a browser to access iSQL*Plus.

CLASSROOM SERVER setup

The CLASSROOM SERVER will have Oracle9i Database Server Enterprise Edition (9iDB EE) 9.0.1.1.1 installed.

On the CLASSROOM SERVER one ORACLE HOME will exist.

	Oracle Home	Location	Software Installed
1.	Default Oracle Home	c:\oracle\ora90	9iDB EE 9.0.1.1.1

CLASSROOM WORKSTATION setup

Each CLASSROOM WORKSTATION will have the Oracle9i Client installed.

On each CLASSROOM WORKSTATION one ORACLE HOME will exist.

	Oracle Home	Location	Software Installed
1.	Default Oracle Home	c:\oracle\ora90	9i Client

CLASSROOM SERVER Hardware Requirements

	Minimum	Recommended
Operating System	**NT Server 4.0 Service Pack 5**	
CPU	**Pentium II 200**	**Pentium II 233**
Memory	**256M**	**512M**
Hard Drive	**8 GB NTFS**	
Video	**1024x768 resolution, 256 color, 70Hz refresh**	
Monitor	**17" 1024 x 768 resolution at 70MHz**	
CD-ROM	**4x CD-ROM SCSI or EIDE**	
Ethernet	**16 bits 10 Base T twisted pair**	

These minimums only consider NT 4.0 and Oracle software. It is recommended that the CLASSROOM SERVER be used as the Instructor WORKSTATION.

CLASSROOM WORKSTATION Hardware Requirements

	Minimum	Recommended
Operating System	**NT Workstation Service Pack 5**	
CPU	**Pentium II 200**	**Pentium II 233**
Memory	**128MB**	
Hard Drive	**4 GB NTFS**	
Video	**1024x768 resolution, 256 color, 70Hz refresh**	
Monitor	**17” 1024 x 768 resolution at 70MHz**	
CD-ROM	**4x CD-ROM SCSI or EIDE**	
Ethernet	**16 bits 10 Base T twisted pair**	

These minimums only consider NT 4.0 and Oracle software.

Common Setup for Oracle9i Language Courses

At the time that this setup document was created the following courses comprised the Oracle9i language curriculum.

Introduction to Oracle9i: SQL	40049GC11
Introduction to Oracle9i: SQL Basics	40057GC11
Introduction to Oracle9i for Experienced SQL Users	40059GC10
Oracle9i: Advanced SQL	40058GC11
Oracle9i: SQL for End Users	40060GC10
Oracle9i: PL/SQL Fundamentals	40055GC11
Oracle9i: Program with PL/SQL	40054GC11
Oracle9i: Develop PL/SQL Program Units	40056GC11

The setup for all Oracle9i language courses is performed in three steps.

1. Common Setup of CLASSROOM SERVER
2. Common Setup of CLASSROOM WORKSTATIONS
3. Course Specific Setup

Steps 1 and 2 are identical for all Oracle9i language courses listed above. Step 3 is different for each specific course.

These setups were designed to provide maximum flexibility for every customer. Examples of several scenarios are provided to explain how to use these setups to meet your specific needs.

Scenario 1: Customer wants to conduct a single Oracle9i language course once never to offer any of these courses again.

Perform steps 1, 2 and 3 for the specific course.

Scenario 2: **Customer will be conducting two Oracle9i language courses over the next two weeks. Introduction to Oracle9i: SQL will be conducted the first week and Oracle9i: PL/SQL Fundamentals the second week.**

Prior to the first week perform steps 1, 2 and 3 from the Introduction to Oracle9i: SQL setup document. After that class has ended perform only step 3 from the Oracle9i: PL/SQL Fundamentals setup document.

Scenario 3: **Customer will be conducting two Oracle9i language courses. There will be four weeks in between the classes. Introduction to Oracle9i: SQL will be conducted the first week and Oracle9i: PL/SQL Fundamentals the fifth week. In between classes the CLASSROOM SERVER and each CLASSROOM WORKSTATION will be used for other purposes. Customer uses "imaging/ghosting"software.**

Prior to the first week, perform steps 1 and 2 from the Introduction to Oracle9i: SQL setup document. Take an image of the CLASSROOM SERVER and CLASSROOM WORKSTATION. Finish the setup by performing step 3 from the Introduction to Oracle9i: SQL setup document.

Prior to starting the second class restore the image of the CLASSROOM SERVER and the CLASSROOM WORKSTATION which has only steps 1 and 2 completed. Finish the setup of the second class by performing step 3 from the Oracle9i:PL/SQL Fundamentals setup document.

1. Common Setup of CLASSROOM SERVER

Overview: In this phase you will install software, and configure the network on the CLASSROOM SERVER. It is assumed that the CLASSROOM SERVER will be used as the Instructor WORKSTATION.

Duration : 2 hours and 25 minutes

Requirements:

Ensure CLASSROOM WORKSTATION has NT 4.0 Server or Workstation, Service Pack 5, and TCP/IP installed. Also ensure the host name is resolvable through local host file or a Domain Name Server.

Install Netscape Communicator 4.X or Internet Explorer 5.5, WinZip, and Adobe Acrobat.

Open the course setup file in WINZIP. Extract all files to **c:** and ensure that **"Use Folder Name"** box is checked. This will create the c:\oracourse folder structure required for the setup.

Note:

After all software is installed the following ORACLE_HOME and software will exist on the CLASSROOM SERVER:

	Oracle Home	Location	Software Installed
1.	Default Oracle Home	c:\oracle\ora90	9iDB EE 9.0.1.1.1

A single database (V901) will be created using the Database Configuration Assistant.

1a. NT Setup

Overview: In this phase you will create an NT group, create NT users, add rights and set user environment variables.

Duration: 10 minutes

Task: Create NT group, users and rights

Log into the CLASSROOM SERVER as the administrator.

Go to Start Menu, Programs, Administrative Tools (Common), and open User Manager for Domains.

Select User -New Local Group in the Menu Bar and enter "ORA_DBA" in the Group Name dialogue box. Add Administrator to the group ORA_DBA.

Select User -New User in the Menu Bar. Enter "dba" for the Username and "oracle" for the Password. Ensure that "User Must Change Password at Next Login" and "Account Disabled" are **not** checked. Ensure that "User Cannot Change Password" and "Password Never Expires" **are** checked. Add the "dba" user to the "Administrators", "ORA_DBA" and "Users" Groups.

Select User -New User in the Menu Bar. Enter "student" for the Username and "student" for the Password. Ensure that "User Must Change Password at Next Login" and "Account Disabled" are **not** checked. Ensure that "User Cannot Change Password" and "Password Never Expires" **are** checked. Add the "student" user to the "Users" Group.

Select Policies - User Rights. In the User Rights Policy screen check "Show Advanced Rights". In the right-hand drop down box select "Act as part of the operating system". Click the "Add" button. In the "Add Users and Groups" screen highlight the "Administrators" and the "ORA_DBA" groups and click "Add". Repeat this process for the following Advanced Rights, "Increase quotas", "Log on as a service", "Log on as a batch job" and "Replace a process level token". The end result is the Administrator and ORA_DBA groups should have the following Advanced Rights:

Act as part of the operating system
Increase quotas
Log on as a batch job
Log on as a service
Replace a process level token

1a. NT Setup (continued)

Task: Setup User Environment Variables

Log into the CLASSROOM SERVER as the user "dba" with a password of "oracle".
Set **CLASS_HOME** as a user environment variable with a value of the location of the course lab/demo/solution files. The recommended and default location is **c:\oraclass**. To set a system variable access the System Properties property sheet by either right clicking on My Computer and selecting Properties or via the Control Panel System icon. Select the Environment tab and highlight any of the variables in the User Variables window then in the Variable text field enter **CLASS_HOME** and in the Value text field enter **c:\oraclass**. Click OK to save the changes.

Log into the CLASSROOM SERVER as the user "student" with a password of "student".
Set **CLASS_HOME** as a user environment variable with a value of the location of the course lab/demo/solution files. The recommended and default location is **c:\oraclass**. To set a system variable access the System Properties property sheet by either right clicking on My Computer and selecting Properties or via the Control Panel System icon. Select the Environment tab and highlight any of the variables in the User Variables window then in the Variable text field enter **CLASS_HOME** and in the Value text field enter **c:\oraclass**. Click OK to save the changes.

1b. Install Oracle9i Database Server

Overview: In this phase you will install Oracle9i Database Server and update the registryBetter results were achieved during testing by copying all files from all 3 CDs to a staging area on the CLASSROOM SERVER. Folders were created (c:\temp\disk1, c:\temp\disk2 and c:\temp\disk3) And files were copied from each CD to these folders.

Duration: 1 hour

Task: Install Oracle9i Database Server

Place the Oracle9i Database Server Enterprise Edition CD into the CD-ROM or start the installer by double-clicking \disk1\Setup.

In the "**Welcome**" screen select "**Next**".
In the "**File Location**" screen enter the Name and Path of the Oracle9i ORACLE_HOME then select "**Next**"

Name: OraHome90
Path: c:\oracle\ora90

In the "**Available Products**" screen select "**Oracle9i Database 9.0.1.1.1** then select "**Next**".
In the "**Installation Types**" screen select "**Enterprise Edition (1.76GB)**" then select "**Next**".
In the "**Database Configuration**" screen select "**Software Only**" then select "**Next**".
In the "**Summary**" screen select "**Install**".
In the "**End of Installation**" screen select "**Exit**".

Reboot the CLASSROOM SERVER.

Task: Update Registry

After the PC has rebooted, set ORACLE_SID and SQLPATH in the Registry
To accomplish this invoke DOS and type c:regedt32
Navigate to **HKEY_LOCAL_MACHINE>SOFTWARE>ORACLE>HOME0** (or ORACLE_HOME were 9i is installed.)

On the menu select Edit-Add Value.

In the Value Name box type ORACLE_SID then click OK.
In the String box type in V901 then click OK.

Select the Value SQLPATH, in the String box type replace the existing string with c:\oraclass\code_examples;c:\oraclass\demo;c:\oraclass\labs;c:\oraclass\solutions then click OK.

1c. Create V901 Database

Overview: In this phase you will use the Database Configuration Assistant to create the V901.

Duration: 1 hour

Task: Create V901

Start the Database Configuration Assistant. Select Start > Programs > Oracle – OraHome90 > Configuration and Migration Tools > Database Configuration Assistant.

In the "**Oracle Database Configuration Assistant: Welcome**" screen, select "**Next**".

In the "**Oracle Database Configuration Assistant, Step 1 of 9: Operations** " screen, select "**Create a database**", then select "**Next**".

In the "**Oracle Database Configuration Assistant, Step 2 of 8: Database Templates**" screen, select "**New Database**", then select "**Next**".

In the "**Oracle Database Configuration Assistant, Step 3 of 8: Database Identification**" screen, for "**Global Database Name:**" type in "**V901.WORLD**". For "**SID:"**, type in "**V901**" then select "**Next**".

Note: Read the next step in it's entirety before performing.

In the "**Oracle Database Configuration Assistant, Step 4 of 8: Database Options**" screen, deselect **all** features by removing the "**check**" in the check box for all options. Twice while deselecting these features a dailog box will be displayed indicating there is a tablespace associated with the feature and would you like to delete the tablespace (not have it created). Answer "**YES**" so the tablespace isn't created.

Select "**Additional database configurations…**". Deselect **all** features by removing the "**check**" in the check box for all options. While deselecting these features a dailog box will be displayed indicating there is a tablespace associated with the feature and would you like to delete the tablespace (not have it created). Answer "**YES**" so the tablespace isn't created.

Note: At this point all database options/features have been deselect.

Select "**Next**".

In the "**Oracle Database Configuration Assistant, Step 5 of 8: Database Connection Options**" screen, select "**Dedicated Server Mode**", then select "**Next**".

1c. Create V901 Database (continued)

Task: Create V901 (continued)

Note: Read the next step in it's entirety before performing.

In the "**Oracle Database Configuration Assistant, Step 6 of 8: Initialization Parameters**" screen, select the "**Memory** " tab. Select the "**Custom**" radio button, set "**Java Pool:**" to 0.

Select "**All Initialization Parameters…**". In the "**All Initialization Parameters**" screen sort the parameters by clicking on the "**Name**" heading.

Change the "**Value**" of the following parameter, then select "**Close**".

Name	**Value**
Job_queue_processes	5
Utl_file_dir	c:\oraclass\utl_file

Select "**Next**".

1c. Create V901 Database (continued)

Task: Create V901 (continued)

In the "**Oracle Database Configuration Assistant, Step 7 of 8: Database Storage**" screen, expand the "**Tablespaces**" node. Make the following changes to the tablespaces by highlighting the Tablespace name on the left and editting the dialog box on the right.

Select **INDX** and make the following changes.

Name: INDEX_DATA

Select **SYSTEM** and make the following changes.

Size: 200 MB

Select **TEMP** and make the following changes.

Name: TEMPORARY_DATA

Select **USERS** and make the following changes.

Name: USER_DATA

Size: 50 MB

Select "**Next**".

In the "**Oracle Database Configuration Assistant, Step 8 of 8: Creation Options**" screen, select "**Create Database**" then select "**Finish**".

In the "**Summary**" screen, select "**OK**".

1d. Configure Oracle Net

Overview: In this phase you will configure an Oracle Net Listener and service name.

Duration: 10 minutes

Task: Configure Listener

Copy c:\oracourse\network\listener.ora to c:\oracle\ora90\network\admin.

Edit c:\oracle\ora90\network\admin\listener.ora and replace all occurrences of XXXXX with the name of the CLASSROOM_SERVER.

Edit the ORACLE_HOME for each instance. V901 should have an ORACLE_HOME where 9.0.1.1.1 is installed (c:\oracle\ora90 is the default location).

Go to a DOS prompt and type the following:

```
C:\lsnrctl start
LSNRCTL for 32-bit Windows: Version 9.0.1.1.1 - Production on 23-OCT-2001 14:56:06
Copyright (c) 1991, 2001, Oracle Corporation.  All rights reserved.
Starting tnslsnr: please wait...
TNSLSNR for 32-bit Windows: Version 9.0.1.1.1 - Production
System parameter file is C:\oracle\ora90\network\admin\listener.ora
Log messages written to C:\oracle\ora90\network\log\listener.log
Listening on: (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)(HOST=aoec-
work)(PORT=1521))(PROTOCOL_STACK=(PRESENTATION=TTC)(SESSION=N
S)))
Connecting to (DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=aoec-
WORK)(PORT=1521))(PROTOCOL_STACK=(PRESENTATION=TTC)(SESSION=N
S)))
STATUS of the LISTENER
------------------------
Alias                     LISTENER
Version                   TNSLSNR for 32-bit Windows: Version 9.0.1.1.1 - Production
Start Date                23-OCT-2001 14:56:08
Uptime                    0 days 0 hr. 0 min. 2 sec
Trace Level               off
Security                  OFF
SNMP                      OFF
Listener Parameter File   C:\oracle\ora90\network\admin\listener.ora
Listener Log File         C:\oracle\ora90\network\log\listener.log
Listening Endpoints Summary...
  (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)(HOST=aoec-
work)(PORT=1521))(PROTOCOL_STACK=(PRESENTATION=TTC)(SESSION=NS)))
Services Summary...
Service "V901.WORLD" has 1 instance(s).
  Instance "V901", status UNKNOWN, has 1 handler(s) for this service...
The command completed successfully
```

1d. Configure Oracle Net (continued)

Task: Configure Service Name

Copy c:\oracourse\network\tnsnames.ora to c:\oracle\ora90\network\admin.

Edit c:\oracle\ora90\network\admin\tnsnames.ora and replace all occurrences of CLASSROOM_SERVER with the name of the CLASSROOM_SERVER.

Copy c:\oracourse\network\sqlnet.ora to c:\oracle\ora90\network\admin.

1e. Test Connectivity to the V901 Database

Overview: In this phase you will test connectivity to the V901 database using SQL*Plus and iSQL*Plus.

Duration: 5 minutes

Task: Configure Oracle Services on CLASSROOM SERVER

Go to Start > Settings > Control Panel > Services.

Confirm that the OracleOraHome90HTTPServer is started and set to start automatically.
Confirm that the Oracle OracleOraHome90TNSListener is started and set to start automatically.
Confirm that the OracleServiceV901 is started and set to start automatically.

All other Oracle Services can be stopped and set to start manually.

Task: Test connectivity to V901 Database using SQL*Plus

Go to a DOS prompt and type the following:

C:\>sqlplus system/manager@v901

SQL*Plus: Release 9.0.1.0.1 - Production on Wed Nov 7 17:30:17 2001

(c) Copyright 2001 Oracle Corporation. All rights reserved.

Connected to:
Oracle9i Enterprise Edition Release 9.0.1.1.1 - Production
With the Partitioning option
JServer Release 9.0.1.1.1 - Production

SQL>

Task: Test connectivity to V901 Database using iSQL*Plus

Open a new browser window and enter the following URL

http://<*CLASSROOM_SERVER_NAME*>/isqlplus

Log in with

Username:	system
Password:	manager
Connection Identifier:	V901

2. Common Setup of CLASSROOM WORKSTATIONS

Overview: In this phase you will install software and configure the network on all CLASSROOM WORKSTATIONs. These steps will be performed on each CLASSROOM WORKSTATION.

Duration : 35 minutes per CLASSROOM WORKSTATION

Requirements:

Ensure CLASSROOM WORKSTATION has NT 4.0 Server or Workstation, Service Pack 5, and TCP/IP installed. Also ensure the host name is resolvable through local host file or a Domain Name Server.

Install Netscape Communicator 4.X or Internet Explorer 5.5, WinZip, and Adobe Acrobat.

Note:

After all software is installed the following ORACLE_HOME and software will exist on each CLASSROOM WORKSTATION:

	Oracle Home	Location	Software Installed
1.	Default Oracle Home	c:\oracle\ora90	9i Client

2a. NT Setup

Overview: In this phase you will create an NT user and set user environment variables.

Duration: 5 minutes

Task: Create NT group, users and rights

Log into the CLASSROOM WORKSTATION as the administrator.

Go to Start Menu> Programs> Administrative Tools (Common), and open User Manager for Domains.

Select User -New User in the Menu Bar. Enter "student" for the Username and "student" for the Password. Ensure that "User Must Change Password at Next Login" and "Account Disabled" are **not** checked. Ensure that "User Cannot Change Password" and "Password Never Expires" **are** checked. Add the "student" user to the "Users" Group.

Log into the CLASSROOM WORKSTATION as the user "student" with a password of "student".
Set **CLASS_HOME** as a user environment variable with a value of the location of course lab/demo/solution files. The recommended and default location is **c:\oraclass**. To set a system variable access the System Properties property sheet by either right clicking on My Computer and selecting Properties or via the Control Panel System icon. Select the Environment tab and highlight any of the variables in the User Variables window then in the Variable text field enter **CLASS_HOME** and in the Value text field enter **c:\oraclass**. Click OK to save the changes.

2b. Install Oracle9i Client

Overview: In this phase you will install Oracle9i client and update the Registry. During testing better results were achieved by copying all files from all 3 CDs to a staging area on the CLASSROOM WORKSTATION. Folders were created c:\temp\disk1, c:\temp\disk2 and c:\temp\disk3. Files were copied from each CD to these folders.

Duration: 20 minutes

Task: Install Oracle9i Client Software

Place the Oracle9i Database Server Enterprise Edition CD into the CD-ROM or start the installer by double-clicking \disk1\Setup.

In the "**Welcome**" screen select "**Next**".
In the "**File Location**" screen enter the Name and Path of the Oracle9i ORACLE_HOME then select "**Next**"

Name: OraHome90
Path: c:\oracle\ora90

In the "**Available Products**" screen select "**Oracle9i Client 9.0.1.1.1"** then select "**Next**".
In the "**Installation Types**" screen select "**Custom**" then select "**Next**".
In the "**Available Products Components**" screen select " **Oracle9i Client 9.0.1.1.1**", deselect all other components, then select "**Next**".
In the "**Component Location**" screen select "**Next**".
In the "**Summary**" screen select "**Install**".
In the "**Oracle Net Configuration Assistant: Welcome**" screen select "**Cancel**".
In the "**Configuration Tools**" screen select "**Next**".
In the "**End of Installation**" screen select "**Exit**".

Reboot the CLASSROOM WORKSTATION.

Task: Update Registry

After the PC has rebooted set SQLPATH in the Registry
At a DOS Prompt type c:regedt32
Navigate to **HKEY_LOCAL_MACHINE>SOFTWARE>ORACLE>HOME0** (or ORACLE_HOME where 9i is installed.)

Select the value SQLPATH, in the string box type replace the existing string with c:\oraclass\code_examples;c:\oraclass\demo;c:\oraclass\labs;c:\oraclass\solutions then click OK.

2c. Configure Oracle Net

Overview: In this phase you will configure an Oracle Net service name.

Duration: 5 minutes

Task: Configure Service Name

Copy c:\oracourse\network\tnsnames.ora to c:\oracle\ora90\network\admin.

Edit c:\oracle\ora90\network\admin\tnsnames.ora and replace all occurrences CLASSROOM_SERVER with the name of the CLASSROOM_SERVER.

Copy c:\oracourse\network\sqlnet.ora to c:\oracle\ora90\network\admin.

2d. Test Connectivity to the V901 Database

Overview: In this phase you will test connectivity to the V901 database using SQL*Plus and iSQL*Plus. First you will ensure all required services on CLASSROOM SERVER are started.

Duration: 5 minutes

Task: Configure Oracle Services on CLASSROOM SERVER

Go to Start – Settings – Control Panel – Services.

Confirm that the OracleOraHome90HTTPServer is Started and set to start Automatically.
Confirm that the Oracle OracleOraHome90TNSListener is Started and set to start Automatically.
Confirm that the OracleServiceV901 is Started and set to start Automatically.

All other Oracle Services can be stopped and set to start manually.

Task: Test connectivity to V901 Database using SQL*Plus

Go to a DOS prompt and type the following:

```
C:\>sqlplus system/manager@v901

SQL*Plus: Release 9.0.1.0.1 - Production on Wed Nov 7 17:30:17 2001

(c) Copyright 2001 Oracle Corporation.  All rights reserved.


Connected to:
Oracle9i Enterprise Edition Release 9.0.1.1.1 - Production
With the Partitioning option
JServer Release 9.0.1.1.1 - Production

SQL>
```

Task: Test connectivity to V901 Database using iSQL*Plus

Open a new browser window and enter the following URL

http://<*CLASSROOM_SERVER_NAME*>/isqlplus

Log in with

Username:	system
Password:	manager
Connection Identifier:	V901

3. Course Specific Setup

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Overview: During this setup you will do the following:

1) **Start the V901 database, HTTP Server and the TNS Listener on the CLASSROOM SERVER.**
2) **Create student database accounts and objects (tables, indexes, etc…) in the V901 database.**
3) **Copy student lab files and solution files to each CLASSROOM WORKSTATION.**
4) **Test the setup.**

Duration: 1 Hour

Task: On the CLASSROOM SERVER expand the course setup files

Open the course setup file in WINZIP. Extract all files to **c:** and ensure that **"Use Folder Name"** box is checked. This will create the c:\oracourse folder structure required for the setup.

Task: On the CLASSROOM SERVER configure Oracle Services

Go to Start > Settings > Control Panel > Services.

Confirm that the OracleOraHome90HTTPServer is Started and set to start Automatically.
Confirm that the Oracle OracleOraHome90TNSListener is Started and set to start Automatically.
Confirm that the OracleServiceV901 is Started and set to start Automatically.

All other Oracle Services can be stopped and set to start manually.

3. Course Specific Setup (continued)

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Task: On the CLASSROOM SERVER run SQL script to create student accounts in V901

Overview: The purpose of this task is to create student accounts and object in the V901 database.

Open a DOS window.
Change directory to **c:\oracourse\9i_intro_sql_11\setup**
Enter the following:
C:\oracourse\9i_intro_sql_11\setup>**sqlplus "/ as sysdba"**

SQL*Plus: Release 9.0.1.0.1 - Production on Mon Mar 11 13:18:33 2002
(c) Copyright 2001 Oracle Corporation. All rights reserved.
Connected to:
Oracle9i Enterprise Edition Release 9.0.1.1.1 - Production
With the Partitioning option
JServer Release 9.0.1.1.1 - Production

SQL>**@setup**
Student accounts will be dropped….
Student accounts will be created ….
Student objects will be created ……
Setup script complete.
Check drop_students.log for errors.
Check create_students.log for errors.
Check student1.log thru student20.log and instructor.log for errors.
Connected.
USER is "SYS"
SQL>

3. Course Specific Setup (continued)

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Task: On the CLASSROOM SERVER test student accounts in SQL*Plus

```
SQL>connect / as sysdba
Connected.
SQL> select username,default_tablespace,temporary_tablespace
  2     from dba_users
  3     order by 1;

USERNAME             DEFAULT_TABLESPACE        TEMPORARY_TABLESPACE
--------------------- ------------------------------ ------------------------------
DBSNMP               SYSTEM                     SYSTEM
INSTRUCTOR           USER_DATA                  TEMPORARY_DATA
OUTLN                SYSTEM                     SYSTEM
STUDENT1             USER_DATA                  TEMPORARY_DATA
STUDENT10            USER_DATA                  TEMPORARY_DATA
STUDENT11            USER_DATA                  TEMPORARY_DATA
STUDENT12            USER_DATA                  TEMPORARY_DATA
STUDENT13            USER_DATA                  TEMPORARY_DATA
STUDENT14            USER_DATA                  TEMPORARY_DATA
STUDENT15            USER_DATA                  TEMPORARY_DATA
STUDENT16            USER_DATA                  TEMPORARY_DATA
STUDENT17            USER_DATA                  TEMPORARY_DATA
STUDENT18            USER_DATA                  TEMPORARY_DATA
STUDENT19            USER_DATA                  TEMPORARY_DATA
STUDENT2             USER_DATA                  TEMPORARY_DATA
STUDENT20            USER_DATA                  TEMPORARY_DATA
STUDENT3             USER_DATA                  TEMPORARY_DATA
STUDENT4             USER_DATA                  TEMPORARY_DATA
STUDENT5             USER_DATA                  TEMPORARY_DATA
STUDENT6             USER_DATA                  TEMPORARY_DATA
STUDENT7             USER_DATA                  TEMPORARY_DATA
STUDENT8             USER_DATA                  TEMPORARY_DATA
STUDENT9             USER_DATA                  TEMPORARY_DATA
SYS                  SYSTEM                     TEMPORARY_DATA
SYSTEM               SYSTEM                     TEMPORARY_DATA

25 rows selected.
```

3. Course Specific Setup (continued)

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Task: On the CLASSROOM SERVER test student objects in SQL*Plus

```
SQL>connect student1/student
Connected.
SQL>column object_name format a30
SQL> select object_type,object_name,status
  2  from user_objects
  3* order by 1,2;

OBJECT_TYPE          OBJECT_NAME                    STATUS
------------------   ------------------------------ -------
INDEX                COUNTRY_C_ID_PK                VALID
INDEX                DEPT_ID_PK                     VALID
INDEX                DEPT_LOCATION_IX               VALID
INDEX                EMP_DEPARTMENT_IX              VALID
INDEX                EMP_EMAIL_UK                   VALID
INDEX                EMP_EMP_ID_PK                  VALID
INDEX                EMP_JOB_IX                     VALID
INDEX                EMP_MANAGER_IX                 VALID
INDEX                EMP_NAME_IX                    VALID
INDEX                JHIST_DEPARTMENT_IX            VALID
INDEX                JHIST_EMPLOYEE_IX              VALID
INDEX                JHIST_EMP_ID_ST_DATE_PK        VALID
INDEX                JHIST_JOB_IX                   VALID
INDEX                JOB_ID_PK                      VALID
INDEX                LOC_CITY_IX                    VALID
INDEX                LOC_COUNTRY_IX                 VALID
INDEX                LOC_ID_PK                      VALID
INDEX                LOC_STATE_PROVINCE_IX          VALID
INDEX                REG_ID_PK                      VALID
SEQUENCE             DEPARTMENTS_SEQ                VALID
SEQUENCE             EMPLOYEES_SEQ                  VALID
SEQUENCE             LOCATIONS_SEQ                  VALID
TABLE                COUNTRIES                      VALID
TABLE                DEPARTMENTS                    VALID
TABLE                EMPLOYEES                      VALID
TABLE                JOBS                           VALID
TABLE                JOB_GRADES                     VALID
TABLE                JOB_HISTORY                    VALID
TABLE                LOCATIONS                      VALID
TABLE                REGIONS                        VALID
VIEW                 EMP_DETAILS_VIEW               VALID

31 rows selected.
```

Repeat for username/password: student2/student – student20/student and instructor/instructor.

3. Course Specific Setup (continued)

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Task: Copy student course files to each student CLASSROOM WORKSTATION

If c:\oraclass folder exists on the student CLASSROOM WORKSTATION from a previous class, delete it.

On the CLASSROOM SERVER locate c:\oracourse\9i_intro_sql_11\setup\student.zip.

Extract all files in student.zip to each student CLASSROOM WORKSTATION. The files should be extracted to **c:**. When extracting these files from student.zip ensure that the **"Use folder names"** check box is checked. This will create the following folder structure.

C:\oraclass\code_examples
C:\oraclass\flat_files
C:\oraclass\labs
C:\oraclass\code_examples
C:\oraclass\solutions

Task: Copy instructor course files to the instructor CLASSROOM WORKSTATION

Note: It is recommended that the CLASSROOM SERVER be used as the instructor CLASSROOM WORKSTATION.

If c:\oraclass folder exists on the instructor CLASSROOM WORKSTATION from a previous class, delete it.

On the CLASSROOM SERVER locate c:\oracourse\9i_intro_sql_11\setup\student.zip.

Extract all files in student.zip to the instructor CLASSROOM WORKSTATION. The files should be extracted to **c:**. When extracting these files from student.zip ensure that the **"Use folder names"** check box is checked.

On the CLASSROOM SERVER locate c:\oracourse\9i_intro_sql_11\setup\demo.zip.

Extract all files in demo.zip to the instructor CLASSROOM WORKSTATION. The files should be extracted to **c:**. When extracting these files from demo.zip ensure that the **"Use folder names"** check box is checked.

After both student.zip and demo.zip are extracted the following folder structure will exist.

C:\oraclass\code_examples
C:\oraclass\demo
C:\oraclass\flat_files
C:\oraclass\labs
C:\oraclass\code_examples
C:\oraclass\solutions

3. Course Specific Setup (continued)

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Task: Final Preparation for class

Review the instructor readme file for the course.

Provide the instructor readme file to the instructor and inform the instructor of any changes to setup or log in information.

Show the instructor the location of course Powerpoint presentations and how to use audio/visual equipment.

Instructor Notes

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NT Log In Accounts

Students and instructors log into their NT Workstation with the following

User Name: student
Password: student

NT Services

Go to Start – Settings – Control Panel – Services.

Confirm that the OracleOraHome90HTTPServer is Started and set to start Automatically.
Confirm that the Oracle OracleOraHome90TNSListener is Started and set to start Automatically.
Confirm that the OracleServiceV901 is Started and set to start Automatically.

All other Oracle Services can be stopped and set to start manually.

Location of Course Files

c:\oraclass\code_examples
c:\oraclass\demo
c:\oraclass\flat_files
c:\oraclass\labs
c:\oraclass\solutions

Database Log In Accounts

Students log into the database with the following username/password and service name.

Username: student**X** **X**=1-20
Password: student
Service Name: V901

Instructors log into the database with the following username/password and service name.

Username: instructor
Password: instructor
Service Name: V901

Instructor Notes

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Lesson, Demo, Lab ands Solution Corrections

None.