

# Setup Instructions for: Oracle9iAS InterConnect 9.0.2

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## HARDWARE

The following client hardware was used to develop this outline:

Compaq EVO, Pentium 4, 512 MB RAM, 20 MB Disk  
Windows 2000

## SOFTWARE

The following server and client software was used to develop this course:

### Components

1. Oracle9i Enterprise Edition 9.0.1.1.1
  - HTTP Server 1.3.1.2.0.3a
  - Oracle Intelligent Agent
  - Oracle Enterprise Manager 9.0.1.0.1
    - Console
    - Repository
  - Oracle Management Server
2. Oracle Workflow Server 2.6.2
3. Oracle9iAS InterConnect 9.0.2
  - Oracle9iAS InterConnect Hub
  - Oracle9iAS Adapters
  - Oracle9iAS InterConnect Development Kit
  - Oracle9iAS Enterprise Management Infrastructure

## MINIMUM HARDWARE AND SOFTWARE TO RUN THIS COURSE

All software is co-resident on each student PC. The minimum memory and disk space requirements are:

- Windows NT 4.0 Service Pack 4 or 5
- 512MB RAM preferred
- 8 GB free disk space

### Memory (RAM) Usage

• WNI2000	98	MB
• Oracle Enterprise Edition	135	MB
• Listener	5	MB
• Intelegant Agent	15	MB
• SNMPPeerMasterAgent	4	MB
• Oracle Management Server	50	MB
• Apache HTTP Server	85	MB
• Oracle9iAS Interconnect Repository	20	MB
• AQ Adapter	25	MB
• DB Adapter	25	MB
• Workflow Adapter	25	MB
	<hr/>	
	483	MB

**There are three possible topologies for this installation.**

#### 1. Topology 1: With Oracle9iAS (Recommended)

This configuration is a true three-tier topology where Oracle9iAS and the Infrastructure database are used.

- Uses approximately 800 Megs RAM
- Required for Oracle Single Oracle Sign On (OSSO)

#### 2. Topology 2: With Oracle database (Used for this co-resident installation)

Uses approximately 483 Megs RAM

In this configuration the user will have to manually:

- Create the Oracle9iAS InterConnect Repository
- Create the Oracle Workflow repository
- Configure the HTTP Server
- Configure Oracle9i
- Configure the OEM Plug-In for InterConnect (Not supported)

Note:

This topology was used to conserve memory & disk usage. There are processes that are not required in this topology and a custom database installation can save disk space. If memory /disk usage not a concern then Topology 3 is the easiest install.

### 3. Topology 3: With Oracle9iAS Metadata Repository (Not used for this installation)

This configuration is similar to Topology 1 but Oracle9iAS is not used.

- Uses approximately 600 Megs RAM
- In this configuration Oracle9iAS is not used

## RECOMMENDATIONS

### Topology 2: Installation Order

1. Install Oracle 9.0.1 Enterprise Edition Home E:\Oracle\Ora90
  - Intelligent Agent
  - Oracle Management Server
2. Install Oracle9iAS Integration Home E:\Oracle\Ora9iAS
  - A. Oracle9iAS InterConnect Hub
    - Post Installation. (hubschema.bat)
  - B. Oracle9iAS Adapters
    - Post Installation for DB Adapter. (oaischema.bat)
  - C. Oracle9iAS InterConnect Development Kit
  - D. Oracle9iAS Enterprise Management Infrastructure
3. Run the Workflow Configuration Assistant  
E:\Oracle\Ora9iAS\wf\install\wfinstall.bat
4. Configure Oracle Workflow Monitor
5. Edit file: httpd.conf and add Workflow aliases
6. Manually configure the Enterprise Manager plug-In for Oracle9iAS InterConnect

## INSTALLATION- SUPPORTING SOFTWARE

### Oracle Enterprise Edition 9.0.1)

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Note:

- It is assumed that if an option is not explicitly listed in these instructions you should take the default
- When deselecting server options: Certain options are dependant on others therefore the order of deseleting can be anoying, but you can deselect all of them.

#### Installer

##### →File Locations

Oracle Home Name Ora90

Oracle Home Path E:\Oracle\Ora90

##### →Available Products

Select Oracle9i Enterprise Edition

##### →Installation Type

Select Custom

##### →Available Product Components

De-select ALL components except those listed below:

Oracle 9I Server

Net 8 Products

Oracle NET Listener

Oracle Enterprise Manager Products

Oracle Intelligent Agent

Oracle Management Server

Oracle HTTP Server

##### →Component Location

Select defaults

##### →OMS Repository

Select New Repository

##### →Create Database

Select Yes

##### →Database Identification

ORCL

### Net8 Configuration Assistant

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Select: Perform typical Configuration

## Oracle Database Configuration Assistant

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<b>Welcome</b>		Select Next
<b>Step 1 of 7: Operation</b>		Select Create a database
<b>Step 2 of 7: Database template</b>		Select Transaction
<b>Step 3 of 7: Database Id</b>		ORCL
<b>Step 4 of 7: Connction Type</b>		Select Dedicated Mode
<b>Step 5 of 7: Init. Parameters</b>		Take defaults
<b>Step 6 of 7: DB Storage</b>		Resize Redo logs to 20Meg
<b>Step 7 of 7: Creation Option</b>		Select Create database
<b>Finish:</b>		

## Enterprise Manager Configuration Assistant

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<b>Step 1 of 9: Welcome</b>		Select Next
<b>Step 2 of 9: Configuration Operation</b>		Select Configure local OMS
<b>Step 3 of 9: Configure OMS</b>		Select create new repository
<b>Step 4 of 9: Create new Options</b>		Select Custom
<b>Step 5 of 9: Select db Location</b>		Select In another existing db
<b>Step 6 of 9: Select db for Repository</b>		sys Change_on_install ORCL
<b>Step 7 of 9: Repository Login Info</b>		oem_repos Welcome1
<b>Step 8 of 9: Select Tablespace</b>		Select default
<b>Step 9 of 9: Summary</b>		Select finish

## INSTALLATION - ORACLE9iAS INTERCONNECT 9.0.2

<b>Installer</b>	<b>A. Oracle9iAS InterConnect Hub</b>
→Welcome	Select Next
→File Location	Oracle Home Name : Ora9iAS Oracle Home Path : E:\Oracle\Ora9iAS
→Installation Type	A. Oracle9iAS InterConnect Hub
→Database Conn. Info	Host : localhost Port : 1521 SID : ORCL
→Oracle9iAS Repository	oaihun902 & owf_mgr Password : welcome1
→Install	
→Post Install Step	hubschema -create system/manager welcome1 orcl

<b>Installer</b>	<b>B. Oracle9iAS InterConnect Adapters</b>
→Welcome	Select Next
→File Location	Oracle Home Name : Ora9iAS Oracle Home Path : E:\Oracle\Ora9iAS
→Installation Type	B. Oracle9iAS InterConnect Adapters
→Available Prod. Comp.	DB Adapter
→HUB Database	Host : localhost Port : 1521 SID : ORCL Password : welcome1
→DB Adapter Config.	App. Name : DBAPP
→App Spoke DB	Host : localhost Port : 1521 SID : ORCL
→poke App DB Name	User : DBAPP Password : welcome1
→Summary	Install
Post Install Step	oaischema -create sys/change_on_install orcl

<b>Installer</b>	<b>B. Oracle9iAS InterConnect Adapters</b>
→Welcome	Select Next
→File Location	Oracle Home Name : Ora9iAS Oracle Home Path : E:\Oracle\Ora9iAS
→Installation Type	B. Oracle9iAS InterConnect Adapters
→Available Prod. Comp.	AQ Adapter
→HUB Database	Host : localhost Port : 1521 SID : ORCL Password : welcome1
→AQ Adapter Config.	App. Name : AQAPP
→App Spoke DB	Host : localhost Port : 1521 SID : ORCL
→Spoke App AQ Name	User : AQAPP Password : welcome1
→Summary	Install

<b>Installer</b>	<b>C. Oracle9ias Interconnect Dev Kit</b>
→Welcome	Select Next
→File Location	Oracle Home Name : Ora9iAS Oracle Home Path : E:\Oracle\Ora9iAS
→Installation Type	C. Oracle9ias Interconnect Dev Kit
→HUB Database	Host : localhost Port : 1521 SID : ORCL Password : welcome1
→Summary	Install

Note: Cancel the Net Configrration Assistant

<b>Installer</b>	<b>D. Oracle9iAS EM Infrastructure</b>
→Welcome	Select Next
→File Location	Oracle Home Name : Ora9iAS Oracle Home Path : E:\Oracle\Ora9iAS
→Installation Type	D. Oracle9iAS EM Infrastructure
→Summary	Install

## Oracle Workflow Server Installation V 2.6

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### Copy the tnsnames.ora file

From : E:\Oracle\Ora90\Network\Admin  
To : E:\Oracle\Ora9iAS\Network\Admin

### Launch Configuration Assistant

Workflow Account : owf\_mgr  
Workflow Password: : welcome1  
SYS Password: : change\_on\_install  
SYSTEM Password: : manager  
Install Option: : Install  
Connect Method: : Remote  
Connect String: : ORCL

### Workflow - Monitor & Server Setup

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For ALL Oracle9iAS Installation issues, refer to the Oracle9iAS Installation Guide:  
Appendix C

- **Edit the database init.ora parameter file**

```
job_queue_processes = 2
job_queue_interval = 5
aq_tm_processes = 1
```

Note: At This point bounce the database for theses setting to take effect.

- **Configure your Web Server**

In Internet Explorer open the Oracle HTTP Server Component Page  
<http://localhost>

- Select Mod\_plsql
- Select Gateway database Descriptor Settings
- Select "Add Default" to Create a data item descriptor for Workflow

Database Access Descriptor Name : WF\_DAD  
Schema Name : Leave Blank  
Oracle User Name : Leave Blank  
Oracle Password : Leave Blank  
Oracle Connect String : ORCL  
Authentication Mode : Basic  
Session Cookie Name : Leave Blank  
Session Mgmt. Type : Default  
Enable Conn. Pooling : Default  
Default (Home) Page : wfa\_html.home  
Document Access : Blank  
Path Alias : Blank

- **Set up the Oracle Workflow Monitor**

Edit file E:\Oracle\Ora90\Apache\Apache\Conf\http.conf

Add to the begin:

```
Alias /OA_JAVA/      "E:\oracle\ora90\jlib/"
Alias /OA_MEDIA/    "E:\oracle\ora90\wf\java\oracle\apps\wnd\wf\icons/"
Alias /OA_DOC/      "E:\oracle\ora90\wf\doc/"
```

- E:\Oracle\Ora90\ should be changed to your oracle home.
- At This point bounce the HTTP Server, for these changes to take effect.

You can now access the Workflow monitor home page with url:

[http://localhost:80/pls/wf\\_dad/wfa\\_html.home](http://localhost:80/pls/wf_dad/wfa_html.home)

## **Workflow Monitor Setup for Oracle9iAS InterConnect**

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Refer to Oracle9iAS InterConnect Installation Guide

1. In Internet Explorer invoke the Workflow Monitor  
URL: : [http://localhost/pls/wf\\_dad/wfa\\_html.home](http://localhost/pls/wf_dad/wfa_html.home)  
User: : owf\_mgr  
Password: : welcome1
2. Select "Global Workflow Preferences" and update the System Status to "ENABLED"
3. Select "Check Setup" and create an action for schedule listeners WF\_IN and WF\_ERROR with a 10 sec interval.
4. Select "Event Subscription" and add subscription to (3) Events  
oracle.apps.wf.event.agent.create  
oracle.apps.wf.event.event.create  
oracle.apps.wf.event.subscription.create

For each subscription use these values:

<b>Field</b>	<b>Value</b>
System	: Your OWF System (i.e database)
Source Type	: External
Event Filter	: The event Name (See above)
Status	: Enabled
Rule Data	: Key
Rule Function	: wf_event_functions_pkg.receive
Description	: Oracle9iAS InterConnect Subscription

## Oracle Enterprise Manager Console – Discover Nodes

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- The first time you login to the OEM Console :
  - User: sysman
  - Password: oem\_temp
- Change password to: welcome1

## Manual Configuration: Enterprise Manager for Oracle9iAS InterConnect

### Oracle9iAS InterConnect home E:\Oracle\Ora9iAS

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1. ADD files to directory: E:\oracle\Ora9ias\oai\9.0.2\console
  - oaiservice.ini** Edit Path: E:\oracle\ora90\
  - post\_install\_server.bat** Edit Path E:\Oracle\Ora90\bin
  - oaievents.registry**

#### Note:

- File oai\_oms\_service.ini should be created automatically when information is added in OEM
  - Sample files are attached
2. Execute post\_install\_server.bat
  3. The following line should be automatically added to file E:\Oracle\Ora90\sysman\config\oemClient.Properties when the agent starts :

```
##### OAI Management Infrastructure (Client) #####  
/com/oracle/sysman/em/console/integration_component/oracle_sysman_OAI/integr  
ation_class=oracle.oai.tools.oaiconsole.emclient.OAIIntegrationComponent
```

### Oracle 9.0.1 database home E:\Oracle\Ora90

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4. Directory E:\oracle\Ora90\network\agent\config\
  - ADD file "**oai\_system.tcl**"
  - ADD line "**oai\_system.tcl=1**" to file: nmiconf.lst.REF.properties
  - Add Line "**oai\_system.tcl**" to file: nmiconf.lst
5. Directory E:\oracle\Ora90\network\agent\
  - ADD directory "**NOTIFY**"
6. Directory E:\Oracle\Ora90\sysman\config
  - ADD file "**OMSEExternalRegistry.registry**"
  - File "**OMSEExternalRegistry.registry**" edit file all paths to point to Ora9iAS home (E:\Oracle\Ora9iAS)

## **LOCATE & DOWNLOAD COURSE FILES FROM OU SERVER**

Not applicable

## **CREATE STUDENT AND INSTRUCTOR ACCOUNTS**

Not applicable

## **CREATE THE ORACLE DATABASE**

Refer to installation section.

## **STUDENT AND INSTRUCTOR FILES**

T.B.D.

## **SETUP DATABASE USERS AND TABLES FOR PRACTICES**

Refer to installation section.

## **NET8 CONFIGURATION**

As part of the imaging post process, a PERL script is required to reset the machine name for the listener.ora & tnsname. Ora in both oracle homes. The Oracle Intelligent Agent will automatically pick up this change, and generate the new agent files, when its is started.

## SPECIAL SETUP INSTRUCTIONS

### Setup for Disk Imaging

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For the Oracle University master image preset.

- OEM Console - Remove the Discovered Node(s)
- Stop ALL Oracle9iAS InterConnect Services
- Stop the OMS & Agent Services
- Oracle Intelligent Agent
  - Delete files
    - <Oracle-Home>\Network\Admin\snmp\*.ora
    - <Oracle-Home>\Network\Agent\\*.q
    - <Oracle-Home>\Network\Agent\\*.ora
- Delete Oracle9iAS InterConnect log & persistence directories
  - <Oracle-Home>\oai\9.0.2\workflow
  - <Oracle-Home>\oai\9.0.2\aqapp
  - <Oracle-Home>\oai\9.0.2\dbapp
- Delete data in oiahub902 schema
  - repidtable
  - appidtable
  - componentinfovalue
  - componentinfo
- HTTP Server - Should be setup as standalone in httpd.conf
- Script required to update machine name in:
  - <Oracle-Home>\network\admin\Tnsnames.ora
  - <Oracle-Home>\network\admin\Listener.ora
- Shutdown remaining Oracle NT services

### NT Services

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The order in which the Oracle NT Services start can be an issue therefore set ALL Oracle NT Services to "MANUAL"

#### Sample Dos Batch File to Start the Oracle NT Service

All NT Service should be set to manual. A DOS batch file will be supplied to start up the services

```
NET START OracleOra90TNSListener
NET START OracleServiceORCL
NET START OracleOra90Agent
NET START OracleOra90SNMPPeerMasterAgent
NET START OracleOra9iASInterConnectRepository
NET START OracleOra9iASInterConnect-DBAPP
NET START OracleOra9iASInterConnect-AQAPP
NET START OracleOra9iASInterConnectWorkflow
NET START OracleOra90ManagementServer
NET START OracleOra90HTTPServer
```

## Desktop Shortcuts

Desktop shortcuts should be added for:

- InterConnect iStudio
- Oracle Workflow Builder
- OEM Console
- Sqlplus
- NT Services startup DOS batch file

## TESTING THE ORACLE9iAS INTERCONNECT INSTALLATION

- Start all NT services with DOS batch file
- Test Apache server: <http://localhost:80/>
- Test Oracle Workflow Monitor: [http://localhost/pls/wf\\_dad/wfa\\_html.home](http://localhost/pls/wf_dad/wfa_html.home)
  - Login to Oracle Workflow Monitor as: owf\_mgr/welcome1
- Login to SQLPLUS as: system/manager then system/manager@ORCL
- Login to Oracle Workflow Builder as: owf\_mgr/welcome1
- Login to the OEM Console as: sysman/sysman
- Login to iStudio:
  - Repository Name oai\_repository
  - Hub database Username oaihub
  - Hub database password welcome1
  - Hub database URL localhost:1521:ORCL

## CLEANUP AFTER CLASS

Not applicable, the workstation will be re-imaged