

# Instalasi SOFTWARE DATABASE oracle

1



### Kebutuhan Sistem

- 512 MB physical random access memory (RAM)
- 1 GB swap space (atau dua kali ukuran RAM, jika ukuran RAM
   <= 2 GB)</li>
- 400 MB temporary directory (\temp)
- 1.5 GB disk space untuk software Databse Oracle
- 1.5 GB disk space untuk database



#### Instalasi Oracle Database



#### Instalasi Oracle Database

10 <sup>r</sup> Oracle Universal Installer	<u> </u>
Starting Oracle Universal Installer	
Checking installer requirements	
Checking operating system version: must be 4.0, 5.0, 5.1 or 5.2. Actual 5 Passed	.2
Checking monitor: must be configured to display at least 256 colors. Actu 294967296 Passed	al 4
All installer requirements met.	
Preparing to launch Oracle Universal Installer from F:\DOCUME~1\ADMINI~1\LOC 1\Temp\OraInstall2009-02-22_10-07-58AM. Please wait	ALS~

## Oracle Universal Installer (OUI)

Oracle Database 10g Installation - Installation Method
Select Installation Method © Basic Installation Perform full Oracle Database 10g installation with standard configuration options requiring minimal input. This option uses file system for storage, and a single password for all database accounts.
Orosio Lieme Leastien: Lieracle)product10.2.0)db.1
Installation Type: Edition (1.3GB)
☑ Create <u>S</u> tarter Database (additional 720MB)
Global Database Name: orcl
Database Password: Confirm Password:
This password is used for the SYS, SYSTEM, SYSMAN, and DBSNMP accounts.
C Advanced Installation
Allows advanced selections such as different passwords for the SYS, SYSTEM, SYSMAN, and DBSNMP
accounts, database character set, product languages, automated backups, custom installation, and alternative storage options such as Automatic Storage Management.
BackNext (Install Cancel
ORACLE

#### Metode Instalasi



#### Pemeriksaan Prasyarat



#### Summary



#### Proses Instalasi

🗽 Oracle Universal Installer: Install	
Install	
Installation in progress	Oracle Database 10g:
Setup pending	The Database for the Grid     Virtualization at every layer
Configuration pending	Policy-based provisioning
Extracting files to 'F:\oracle\product\10.2.0\db_1'.	Resource pooling
10%	
(Stop installation)	
	1
You can find a log of this install session at:	
F: Program Files IUracle Inventory logs Install Actions 2009-02-22_11-16	-25AM.log
Help Installed Products Back	Next (Install Cancel)
ORACLE	

#### Akhir Proses Instalasi

🗽 Oracle Universal Installer: End of Installation	<u>- 🗆 ×</u>
End of Installation	
The installation of Oracle Database 10g was successful.	
Please remember	
Your database configuration files have been installed in F:\oracle\product\10.2.0 while other components selected for installation have been installed in F: \oracle\product\10.2.0\db_1. Be cautious not to accidentally delete these configuration files. The iSQL*Plus URL is: http://ora-server:5560/isqlplus The iSQL*Plus DBA URL is: http://ora-server:5560/isqlplus/dba	
	Ν
Help Installed Products Back Next Install E	Exit
ORACLE	

#### Uninstall Oracle Database



#### Uninstall Oracle Database

Inventory	×
Contents Environment	
You have the following Oracle products installed:	
Oracle Homes       ⊡       ⊡       OraDb10g_home1	
Product Information Location: F:\oracle\product\10.2.0\db_1	
Show empty homes.	
If you want to remove Oracle software, please check the items and click "Remove". To see the languages installed and other details of a component,select the component and then click "Details".	
Details	
Help Qlose	)



#### **Proses Uninstall**

Remove		×
ビ Deinstalling 'Oracle	Database User Interface 2.2.13.0.0	
Performing deinstall action	าร	
	37%	
Cancel		

Minventory	×
Contents Environment	_
You have the following Oracle products installed:	
There are no installed products.	
Show empty homes.	
If you want to remove Oracle software, please check the items and click "Remove".	
To see the languages installed and other details of a component select	
the component and then click "Details".	
Details Remove	
Help         Gave As         Close	







# MEMBUAT & MENGHAPUS DATABASE

2



#### Konsep Database

Database

**DBMS** Lain Oracle (MySQL, SQL Server) Database Database Database User/Schema User/Schema

#### Membuat Database

- Membuat database dapat dilakukan dengan 2 cara yaitu :
  - Menggunakan Database Configuration Assistant (DBCA)
  - Menggunakan perintah SQL (CREATE DATABASE)

### Membuat Database Dengan DBCA

📋 Database Configuration Assis	tant : Welcome
	Welcome to Database Configuration Assistant for Oracle database. The Database Configuration Assistant enables you to create a database, configure database options in an existing database, delete a database, and manage database templates.
Cancel Help	< Back Next >>

### Operations

🗿 Database Configuration Assistan	t, Step 1 of 12 : Operations	
Se	elect the operation that you want to perform: Create a Database Configure Database Options Delete a Database Manage Templates Configure Automatic Storage Management	
Cancel Help	<u> </u>	

#### **Database Templates**

Database Configuration Assis	tant, Step	2 of 12 : Database Templates	Template Details	×
	Select a	template from the following list to create a database:	General Pur	pose 📋
	Select	Template	Use this database template to creat database optimized for general p	e a pre-configured urpose usage.
	0	Custom Database		
	0	Data Warehouse	Common Options	
	Q	General Purpose		
Wagerer Bakannian Wagerer Schlannian Wagerer Schlannian	0	Transaction Processing	Option Oracle JVM	selected
			Oracle Data Mining	true
Norschightenien Werschightenien Werschightenien			Oracle ext	true
Average Average Therese Average			Orazie XML DB	true
North Martin			bracle Intermedia	true
Moortegalamian Moortegalamian Moortegalamian				
Koopelitzbelanit, an				(Save as an HTML file)
			Close) (Hel	q
		Show Details	)	
Cancel Help		🔇 Back 🛛 Next 📎		

#### **Database Identification**

Database Configuration Assis	tant, Step 3 of 12 : Databas	e Identification	
Database Configuration Assis	An Oracle database is uni typically of the form "name Global Database Name: A database is referenced I uniquely identified from ar System Identifier (SID). SID:	quely identified by a Global Database N.domain". dbtest.if-unikom.net by at least one Oracle instance which is ny other instance on this computer by a dbtest	Vame,
Cancel Help			

#### **Management Options**

	Each Oracle database may be manage Enterprise Manager Grid Control or loc Manager Database Control. Choose th would like to use to manage this datab	ed centrally using the Oracle ally using the Oracle Enterprise le management option that you lase.
	Configure the Database with Enter	rprise Manager
Watthater	OUse Grid Control for Database M	anagement
Westersteinen Westersteinen	Management Service	No Agents Found
1 May 22 Million for the	Use Database Control for Datab	ase Management
MARTIN Advertise	Enable Email Notifications	
Aprilian Aprilian Marillan Marillan Marillan Marillan Marillan	Outgoing Mail (SMTP) Server:	
MARCHINE MARTINE	Email Address:	
Robin Caracteria	🗆 Enable Daily Backup	
	Backup Start Time:	02 00 00 AM C PM
	OS Username:	
	Password:	

#### **Database Credentials**

Database Configuration As	sistant, Step 5 of 12 : Databa	ase Credentials	
	For security reasons, you accounts in the new data	u must specify passwords abase.	for the following user
	Use the Same Pass	word for All Accounts	
	Password:	*****	
	Confirm Password:	******	
	O Use Different Passw	vords	
	User Name	Password	Confirm Pass
	SYS		
	SYSTEM		
	DBSNMP		
	SYSMAN		
Rest and a second secon			D
Cancel Help	)	🔇 Back 🛛 Next	1 >>

### **Storage Options**

Database Configuration Ass	istant, Step 6 of 12 : Storage Options	
	<ul> <li>Select the storage mechanism you would like to use for the date</li> <li>File System Use the File System for Database storage. </li> <li>Automatic Storage Management (ASM) Automatic Storage Management simplifies database storate administration and optimizes database layout for I/O performation use this option you must either specify a set of disks to create disk group or specify an existing ASM disk group. </li> <li>Raw Devices Raw partitions or volumes can provide the required shared for Real Application Clusters (RAC) databases if you do not Automatic Storage Management and a Cluster File System available. You need to have created one raw device for eat control file, and log file you are planning to create in the data specify Raw Devices Mapping File Browneed to have created one raw device for eat control file, and log file you are planning to create in the data specify Raw Devices Mapping File Browneed to have created one raw device for eat control file, and log file you are planning to create in the data specify Raw Devices Mapping File Browneed to have created one raw device for eat control file, and log file you are planning to create in the data specify Raw Devices Mapping File Browneed to have created one raw device for eat control file, and log file you are planning to create in the data specify Raw Devices Mapping File</li></ul>	itabase. ige rmance. To ate an ASM it use it use is not ch datafile, tabase. owse
Cancel Help	) ( <u>&amp; Back [Next »</u> )	Einish

#### **Database File Locations**

Database Configuration Assist	ant, Step 7 of 12 : Database File Locations	
	Specify locations for the Database files to be created:	
	Use Database File Locations from Template	
	O Use Common Location for All Database Files	
Theoreman in the second s	Database Files Location:	Browse
Waterstation and Management	C Use Oracle-Managed Files	
A Nagraszigakian rian Nagraszigakian rian	Database Area: Multiplex Redo Logs and Control Files If you want to specify different locations for any databa either of the above options and use the Storage page	Browse ase files, pick to specify
Cancel Help	File Location.	Variables) Einish

#### Database Content

Database Configuration Assista	ant, Step 9 of 12 : Database Content	
	Sample Schemas Custom Scripts Sample Schemas illustrate the use of a layered appro complexity, and are used by some demonstration pro- Installing this will give you the following schemas in you Human Resources, Order Entry, Online Catalog, Pro- Information Exchange, Sales History. It will also creat called EXAMPLE. The tablespace will be about 130 MB Specify whether or not to add the Sample Schemas to Sample Schemas	ach to grams. bur database: duct Media, e a tablespace 3. your database.
Cancel Help	🕓 Back 🛛 Next 📎	

## Initialization Parameters (1)

Database Configuration Assista	📑 Database Configuration Assistant, Step 10 of 12 : Initialization Parameters				
	Memory Sizing Character Set	s Connection Mode			
	Typical - Allocate memory as a p	ercentage of the total physical me			
	Percentage: 40 🔹 Show	Memory Distribution)			
	○ Custom				
	Shared Memory Management:	C Automatic C Manual			
	SGA Size	427 M Bytes V			
	PGA Size:	142 M Bytes			
	Total Memory for Oracle:				
	Total memory includes the defaults for the emp	40MB of Oracle Process Size and to parameters if any			
<b>1</b>					
	All Initialization Parameters)				
Cancel Help	<u> </u>	ack <u>Next</u> Einish			

## Initialization Parameters (2)

Database Configuration Assista	ant, Step 10 of 12 : Initialization Parameters
Database Configuration Assists	Ant, Step 10 of 12 : Initialization Parameters
Cancel Help	All Initialization Parameters)

## Initialization Parameters (3)

Database Configuration Assist	ant, Step 10 of 12	: Initializa	ation Param	neters	
	Memory Sizin	n Cha	ranter Sets	Connection Mode	
	Database Ch     Ose the defaul     Ianguage     OUse Unico     Setting cha     store multi     Ochoose fro     Database	g <u>Cha</u> naracter S fault t characte setting of de (AL32U aracter se ple langu om the list Character	et er set for this this operatin JTF8) t to Unicode age groups of characte r Set:	s database is based on th ng system: WE8MSWIN12 e (AL32UTF8) enables you ar sets E8MSWIN1252 - MS Wind	e 52. I to
	National Chara Default Langua Default Date Fo All Initialization F	cter Set: ge: rmat: °arameter	AL16UTF American United S 's	F16 - Unicode UTF-16 Uni n tates	ver •
Cancel Help			(	k Next »	inish )

## Initialization Parameters (4)

Database Configuration Assista	ant, Step 1(	) of 12 : In	itialization Para	meters	<u> </u>
	Memory	Sizing	Character Sets	Connection Mode	
	Select th	e mode in	which you want y	our database to operation	ate by default:
1000000	Dedica	ated Serve	r Mode		
	For ead dedica numbe clients databa	ch client co ted to serv r of total cl will be ma se.	onnection the dat ing only that clier ient connections king persistent, l	abase will allocate a r nt. Use this mode whe is expected to be sma long-running requests	esource en the all or when s to the
	○ Shared Severa resourd conned system	d Server M I client cor ces. Use t at to the da n resource	ode inections share a his mode when a tabase simultan s. The Oracle sh	a database-allocated ( a large number of use eously while efficiently ared server feature wi	pool of irs need to utilizing ill be enabled.
	Sharec want to	l Servers s i create wh	pecifies the num en an instance is	iber of server process s started up.	es that you
	Shared	l Server:			
				Edit Shared Server Par	rameters)
	All Initializ	zation Para	ameters)		
Cancel Help			( ∉ Ba	ck Next >>	Einish

### Database Storage

Database Configuration As	sistant, Step 11 of 12 : D	atabase Storage
⊡ Storage	General Options Controlfile Mirror Image	s:
	File Name	File Directory
- <b>⊷</b> ∎1	control01.ctl	{ORACLE_BASE}/oradata/{DB_UNIQUE
- <b>%</b> @2	control02.ctl	{ORACLE_BASE}/oradata/{DB_UNIQUE
L <sub>G3</sub> ,	control03.ctl	{ORACLE_BASE}/oradata/{DB_UNIQUE
		{ORACLE_BASE}loradatal(DB_UNIQUE
Create Delete		File Location Variables)
Cancel Help	)	<u> </u>

#### **Creation Options**

Database Configuration Assista	ant, Step 12 of 12 : Creation Options	
	Select the database creation options:  Create Database  Save as a Database Template  Name:  dbtest  Description:	
	Generate Database Creation Scripts     Destination     E:\oracle\product\10.2.0\admin\dbtest\sc     E	3rowse
Cancel Help	( 3 Back Next ≥)	Einish

#### Installation Confirmation

Confirmation			×
The following operations will be perform A database called "dbtest" will be creat	ed: :ed.		
Database Details:			
Genera Use this database template to create pu Common Options	al Pu a pre-config rpose usag	rpose gured database optimized for general e.	
Option	Selected		ı
Oracle JVM	true		
Oracle Data Mining	true		
Oracle Text	true		
Oracle XML DB	true		
Oracle Intermedia	true		
Oracle OLAP	true		
Oracle Spatial	true		
Oracle Ultra Search	false		
ОКС	ancel)	(Save as an HTML fi	le

#### Proses Pembuatan Database

Database Configuration A	issistant	×
	<ul> <li>Copying database files</li> <li>Creating and starting Oracle instance</li> </ul>	
	Clone database creation in progress	
		_
	/4%	
	Log files for the current operation are located at: F:\oracle\product\10.2.0\db_1\cfgtoollogs\dbca\dbtest	
	Stop	

#### Pengaturan User Account



#### Test Koneksi Database

差 Oracle SQL*Plus			
File Edit Search Options Help			
SQL>			
Log On			
User Name: Password: Host String:	scott		
ОК	Cancel	F:\WINDOWS\system32\cmd.exe - sqlplus	×
		F:\>sqlplus	
		SOL*Plus: Release 10.2.0.1.0 - Production on	
		Copyright (c) 1982, 2005, Oracle. All right	
		Enter user-name: scott Enter password:	
			-

#### Test SQL

SQL> select table\_name,tablespace\_name from user\_tables;

TABLE_NAME	TABLESPACE_NAME
DEPT	USERS
EMP	USERS
BONUS	USERS
SALGRADE	USERS

SQL> select \* from dept;

DEPTNO DNAME LOC 10 ACCOUNTING NEW YORK 20 RESEARCH DALLAS 30 SALES CHICAGO 40 OPERATIONS BOSTON

#### **Oracle Service**

🍇 Services						_ O ×	I
<u>File Action View</u>	Help						
	) 🗟 😫 🖬 🕨 🔳 🗉 🖦						
Services (Local)	🍇 Services (Local)	-					
	Network Provisioning Service	Name 🛆	Description	Status	Startup Type	Log On As 🔺	
		Sea Office Source Engine	Saves inst		Manual	Local System	
	Start the service	🍓 OracleDBConsoledbtest		Started	Automatic	Local System	
		🍓 Oracle JobSchedulerDBTEST			Disabled	Local System	
	Description:	🎇 OracleServiceDBTEST		Started	Automatic	Local System	
	Manages XML configuration files on a 🝆	AB, no formance bogs and the to	Collecto perm		, internetie	- Hotmonik Sinne - A	
	domain basis for automatic network	🍓 Plug and Play	Enables a c	Started	Automatic	Local System 🛁	1
		🎇 Portable Media Serial Numbe	Retrieves t		Manual	Local System	
		🎇 Print Spooler	Manages al	Started	Automatic	Local System	
		🍓 Protected Storage	Protects st	Started	Automatic	Local System	
		🍓 Remote Access Auto Connec	Detects un		Manual	Local System 🔤	
		68. n	KALLING US		Ma		4
	Extended Standard /						

#### Menghapus Database

- Jika suatu saat suatu database ingin dihapus, maka ada 2 cara yang bisa digunakan yaitu :
  - Menggunakan Database Configuration Assistant (DBCA)
  - Menggunakan Perintah SQL (Drop Database)

Database Configuration Assist	ant : Welcome	
	Welcome to Database Configuration Assistant for database. The Database Configuration Assistant enables yo database, configure database options in an existi delete a database, and manage database templa	Oracle ou to create a ng database, ites.
Cancel Help	S Back Next >>	

Database Configuration Assist	ant, Step 1 of 2 : Operations	
	Select the operation that you want to perform: Create a Database Configure Database Options Delete a Database Manage Templates Configure Automatic Storage Management	
Cancel Help		

Database Configuration Assist	ant, Step 2 of 2 : Database		1	
	Select the database that you want to delete be deleted. Database: DBTEST	e. All database files will		
		Database Configura	tion Assistant	×
		The D Oracle inform want t	atabase Configuration Assistant will delete the e instance and datafiles for your database. All nation in the database will be destroyed. Do yo to proceed?	e u
			Yes No	D
Cancel Help	Back Next	>) <u>Einish</u>		

Database Configuration a	Assistant	×
	Connecting to database Updating network configuration files Deleting instance and datafiles	
	Database deletion in progress	
	f:\oracle\product\10.2.0\db_1\cfgtoollogs\dbca	



#### Konfigurasi database instance, LISTENER, Enterprise manager, *i*SQL\*PLUS



### Management Framework

- 3 komponen untuk melakukan managemen database oracle 109 yaitu :
  - Database instance
  - Listener
  - Management interface
    - Database Control
    - Management agent





Listener

#### **Test Enterprise Manager**



#### Membuat Listener



#### Add Listener

Oracle Net Configuration Assistant	: Listener Configuration, Listener	×
	For remote connections to be made to your Oracle database, you must configure a Oracle Net listener. The Oracle Net Configuration Assistant allows you to add, reconfigure, rename or delete a listener. Select what you want to do:	
Cancel Help		

#### Penamaan Listener

Oracle Net Configuration Assistant: Lis	stener Configuration, Listener Name	×
	For remote connections to be made to your Oracle database you must have at least one Oracle Net listener. Enter the name of the listener you want to create: Listener name: LISTENER	
Cancel Help	🔇 Back 🛛 Next >>	

#### Memilih Protocol

Oracle Net Configuration A	ssistant: Listener Configuration, Select Protocols	×
	You can configure the listener to accept connections over one or more protocols. Select which protocols you want to configure for this listener. Keep your configuration as simple as possible by configuring only the protocols you need.	
	Available Protocols TCPS IPC NMP Selected Protocols TCP TCP Ef Ef	
Cancel Help	) ( <u>Kack</u> Next »)	

#### Pengaturan Port

Oracle Net Configuration Assista	ant: Listener Configuration, TCP/IP Protocol	×
	Which TCP/IP port number should the listener use? The port number selected should not be used by any other software on this computer.	
K	Use the standard port number of 1521	
	OUse another port number: 1521	
Cancel Help		

#### Konfirmasi Pembuatan Listener Lain

Oracle Net Configuration Assista	nt: Listener Configuration, More Listeners?	×
	Would you like to configure another listener? No Yes	
Cancel Help	I Back Next D	

#### Pembuatan Listener Selesai



### Listener di Service Windows

Services					JX	
<u>File Action View H</u> elp						
← → 💽 🗳 🖸	) 🗟 😰 🖬 🕨 🗉 🗉 🖦					
🍇 Services (Local)	🍇 Services (Local)					
	Portable Media Serial Number	Name 🔺	Description	Status	Startup Type	
Service		Source Engine	Saves inst		Manual	
		🍓 OracleDBConsoledbtest		Started	Automatic	
	Start the service	CracleJobSchedulerDBTEST			Disabled	
		a OracleOraDb10g_home1TNSListener		Started	Automatic	
	Description:	www.oracleServiceDBTEST		Started	Automatic	
	Retrieves the serial number of any	🎇 Performance Logs and Alerts	Collects pe		Automatic	
	computer. If this service is stopped.	🍓 Plug and Play	Enables a c	Started	Automatic	
	protected content might not be down	🌸 Portable Media Serial Number Service	Retrieves t		Manual	
	loaded to the device.	🎇 Print Spooler	Manages al	Started	Automatic	
		Contracted Storage	Drotocto et	Charland	Aytomatic	_ <b>_</b>
		<u> </u>				<u> </u>
	\Extended \Standard /					

#### Test Enterprise Manager

😻 Oracle Enterprise Manager - Mozilla Firefox			
<u>File E</u> dit <u>V</u> iew Hi <u>s</u> tory <u>B</u> oo	xmarks <u>T</u> ools <u>H</u> elp	12	
<>> C × 🗠	http://ora-sefver:1158/en 🏠 🔹 💽 • Google 🔎	5	
ORACLE Enterprise Ma	nager 10g	<u>Help</u>	
Login			
Login to Database	:dbtest.if-unikom.net		
≢ Password			
Connect As	Normal		
	Login		
Copyright © 1996, 2005, Oracle. All	rights reserved.		
Done	🗅 📈 😒 🖬 🖕 🍼 💴 🗡	× 💽 //	

#### **Test Enterprise Manager**

ORACLE Enterprise Manager 10g

#### Oracle Database 10g Licensing Information

Oracle Enterprise Manager 10g Database Control is designed for managing a single database, which can be either a single instance or a cluster database. The following premium functionality contained within this release of Enterprise Manager 10g Database Control is available only with an Oracle license:

#### Database Diagnostics Pack

- Automatic Workload Repository
- ADDM (Automated Database Diagnostic Monitor)
- Performance Monitoring (Database and Host)
- Event Notifications: Notification Methods, Rules and Schedules
- · Event history/metric history (Database and Host)
- Blackouts
- Dynamic metric baselines
- Memory performance monitoring

#### Database Tuning Pack

- SQL Access Advisor
- SQL Tuning Advisor
- SQL Tuning Sets
- Reorganize Objects

#### **Configuration Management Pack**

- Database and Host Configuration
- Deployments
- Patch Database and View Patch Cache
- Patch staging
- Clone Database
- Clone Oracle Home
- Search configuration
- Compare configuration
- Policies

For a detailed description of above functionality and where it can be used within the product refer to the Oracle Database 10g Licensing Information document.

I acknowledge and agree that use of this premium functionality requires the purchase of an appropriate license.



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#### **Enterprise Manager**



#### *i*SQL\*Plus



### Install service *i*SQL\*Plus

EN F:\WIN	DOWS\system32\cm	d.exe				
F:∖>isg iSQL*P1 Copyrig Startin iSQL*P1 F:\orac	(lplusctl start us 10.2.0.1.0 ht (c) 2003, 20 g iSQL*Plus us started. le\product\10.2	105, Oracle. All rights re 2.0\db_1\BIN>_	eserved.			
	Services				_ 🗆 ×	
	Eile Action View Help					
	← → 💽 🖻 🛛	3 🗟 😫 🖬 🕨 🔳 🗰				
	🍇 Services (Local)	🍇 Services (Local)	,			
		OracleServiceDBTEST	Name 🔺	Description	Status	Startup Type
						Disabled
		Stop the service	Section 2010 Charles and Charl	iSQL*Plus	Started	Automatic
		Restart the service			Started	Automatic
			* OracleServiceDBTEST		Started	Automatic
			Performance Logs and Alerts	Collects pe		Automatic
		Extended Standard				

#### Test *i*SQL\*Plus



### Eksekusi SQL di *i*SQL\*Plus

#### Workspace

Enter SQL, PL/SQL and SQL\*Plus statements.

 select \* from dept

 Execute
 Load Script

 Save Script
 Cancel

	DEPTNO	DNAME	LOC
	10	ACCOUNTING	NEW YORK
$ \rightarrow $	20	RESEARCH	DALLAS
	30	SALES	CHICAGO
	40	OPERATIONS	BOSTON

#### Uninstall service iSQL\*Plus

