

# Topics - System Administration for Glovia

---

## 1. Network Architecture

Sample Network

## 2. glovia.com Technology Architecture

Application Server

Database Server

Web Server

## 3. Operating System Architecture

High level User View Architecture

Filesystems

## 4. PRO/V Windows Client

Configure the Client for Windows

Configure the Client for Unix with Automatic Login

Configure the Client for Unix with Login via Terminal

Other Property Sheets

Sample .PIV

## 5. Creating a Database Alias

## 6. Introduction to SQL

Relational Database Concept

Definition of Relational Database

Data Models

Entity Relationship Models

Relational Database Terminology

Relating or Joining Multiple Tables

Relational Database Properties

What is SQL?

## 7. SQL Basics

Basic Select Statement

Writing SQL Statements

Executing SQL Statement

Selecting ALL Columns

Selecting Specific Columns

Specify the columns in the order you want to see them

- Column Headings
- Arithmetic Expressions
- Using Parenthesis
- Null Values
- Defining a Column Alias
- Concatenation Operator (||)
- Literal Character Strings
- Duplicate Rows

## **8. Introduction to SQL\*Plus**

- Logging into SQL\*Plus
- Displaying Table Structure
- Displaying Procedure Structure
- Displaying Function Structure
- SQL\*Plus Editing Commands
- SQL\*Plus File Commands

## **9. SQL:Filtering and Sorting Data**

- Filtering and Sorting Data
- Character Strings and Date
- Comparison Operators
  - The BETWEEN Operator
  - The IN Operator
  - The LIKE Operator
  - The NULL Operator
- Logical Operators
  - The AND Operator
  - The OR Operator
  - The NOT Operator
- ORDER BY Clause
  - Sorting in Descending Order
  - Sorting by Multiple Columns
- ESCAPE Clause

## **10. SQL: Single Row Functions**

- Character Functions
  - The ASCII Function
  - The CHR Function
  - The CONCAT Function
  - The INITCAP Function
  - The INSTR Function
  - The LENGTH Function
  - The LOWER Function
  - The LPAD Function
  - The LTRIM Function
  - The REPLACE Function
  - The RPAD Function
  - The RTRIM Function
  - The SOUNDIX Function
  - The SUBSTR Function
  - The TRANSLATE Function

The UPPER Function

#### Date Functions

The ADD\_MONTHS Function

The LAST\_DAY Function

The MONTHS\_BETWEEN Function

The NEXT\_DAY Function

Masks for DATE Format

Masks for TIME Format

Other Masks

The ROUND Function

The SYSDATE Function

The TRUNC Function

#### Numeric Functions

The ABS Function

The CEIL Function

The FLOOR Function

The MOD Function

The ROUND Function

The TRUNC Function

#### Conversion Functions

The TO\_CHAR Function

The TO\_DATE Function

The TO\_NUMBER Function

#### General Functions

The DECODE Function

The GREATEST Function

The LEAST Function

The NVL Function

The UID Function

The USER Function

## 11. SQL: Joining Multiple Tables

Cartesian Product

Types of Joins

Equijoin

Retrieving Records with Equijoin

Non-Equijoins

Outer Joins

Self Joins

Aggregating Data Using Group Functions

Using Group Functions

The GROUP BY clause

The HAVING clause

## 12. SQL: Subqueries

When to use Subqueries

Guidelines for using Subqueries

Single Row Subqueries

The HAVING clause with Subqueries

## 13. SQL: Data Manipulation Language

- The INSERT Statement
- The UPDATE Statement
- The DELETE Statement
- Database Transactions
- COMMIT, SAVEPOINT and ROLLBACK

#### **14. Report Writing with SQL\*Plus**

- Substitution Variables
- Using SET VERIFY Command
- Specifying Column names and Expressions at runtime
- Using the && Substitution Variable
- The ACCEPT Command
- DEFINE and UNDEFINE Command
- SET Command Variables
- SQL\*Plus Format Commands
- The COLUMN Command Options
- Using the COLUMN Command
- Displaying or Clearing settings
- COLUMN Format
- The BREAK Command
- Using TTITLE and BTITLE Commands

#### **15. Understanding Oracle8 Architecture**

- Database Components
- The System Global Area (SGA)
- The Shared Pool
- The Database Buffer Cache
- The Redo Log Buffer
- Background Processes
- PMON and SMON Processes
- User Processes
- Server Processes
- An Oracle Instance
- An Oracle Database
- Redo Log Files
- The Control Files
- The Parameter Files
- Trace Files and the Alert File

#### **16. Starting up and Shutting Down an Instance**

- Enterprise Manager and Server Manager
- Starting Up an Instance
- Mounting the database
- Opening the Database
- Shutting down the Database

#### **17. Managing the Database Structure**

- Objects
- Logical Database Structures
- Tablespaces

- Physical Database Structures
- Resizing Datafiles
- Segments
- Data and Index Segments

## **18. Managing Storage Allocation**

- Extents
- Controlling Extent Allocation
- Database Blocks
- Displaying Extent and Segment Information
- Coalescing Free Space

## **19. Managing Rollback Segments**

- Rollback Segments
- Creating a Rollback Segment
- Altering a Rollback Segment

## **20. Oracle Scripts**

- Database Buffer Cache
- Dictionary Cache
- Library Cache
- Row Locks
- Killing sessions
- Managing Extents on Oracle Tables and Indexes.....
  - Rebuilding Index tablespaces

## **21. Oracle Export**

- What is the Export Utility?
- Export Modes
- Using Export
- Export Parameters
- Example Export Sessions
  - Full Database Mode
  - User Mode
  - Table Mode
- Complete, Incremental, and Cumulative Exports
- System Tables
- Example Compressing the Export Dump File

## **22. Oracle Import**

- What is the Import Utility
- Import Modes
- Using Import
- Import Parameters
- Rollback Segment Requirements
- Importing Structures that Failed to Import
- Using Import to Separate Tables and Indexes
- Example Uncompressing and Importing the Dump File

## **23. PROIV System Setup**

- Logging on to PROIV
- Logging Off
- SuperLayer Installation
- Synchronizing the Environment
- Defining System Standards
- Setting up System Standards
  - Layout Parameters
  - Regen Options
  - Maintenance Guidelines
  - GUI Standards
  - Others
- Saving System Setup
- Restoring System Setup

## **24. glovia.com User Management**

- Creating an OS User
- Delete an OS User
- Creating an Oracle User
- Delete an Oracle User
- Creating and Maintaining a glovia.com User
- Deleting a glovia.com User
- Button Bar Maintenance

## **25. glovia.com Report Device Management**

- Default Report Device
- Defining System Default Report Device
- Logical Report Devices
- Report Device Maintenance
- Report Device Selection
- Assigning Report Devices to Function
- Using @RPTOPT to Modify Spooler Parameters

## **26. PROIV Objects**

- Function
  - Screen [S]
  - Report [R]
  - Update [U]
  - Selectable Window [WS]
  - Input Window [WI]
  - Display Window [WD]
  - Logical Update [LU]
  - Logical Report [LR]
  - Combo Box [WC]
  - List Box [WL]
- File
  - PRO-ISAM
  - Oracle
  - Sequential
- Global Logic

- Value Variable
- Input Checks
- Literal Text
- Global Error Message

## **27. glovia.com Security Management**

- Category Maintenance
  - Function Category Maintenance
  - File Category Maintenance
  - Global Logic Category Maintenance
- Function Security
- File Security
- Operator Security
  - Function Operating Security
  - File Operating Security

## **28. Oracle Security Management**

- Controlling User Access
- Privileges
- Schema
- System Privileges
- Creating Users
- User System Privileges
- What is a Role?
- Creating and Assigning a Role
- Creating and Granting Privileges to a Role
- Changing Passwords
- Object Privileges
- Granting Object Privileges
- Confirming Privileges Granted
- Revoking Object Privileges

## **29. glovia.com Odometers**

- Types of Odometers
- Defining the Odometer
- Application Interface
- Odometer daemon
  - Logic and Purpose
  - Management
- System Requirements
  - Objects
  - Privileges
  - Oracle Setup
- glovia.com scripts
- Steps to Add a New Odometer
- Installation
- Troubleshooting

## **30. PROIV Unix Environment Management**

- Search Path and Alternate Filenames

- Architecture
- Maximum Values
- PRO-ISAM Settings
- UNIX-based System Settings
- File System Integrity

## 31. PROIV Utilities

- Maintainence

- Queue
  - Queue Group
  - Distribution List
  - List Group

- Convert from Native PROIV

- File
  - Menu
  - Function
  - Global Logic

- Copy PROIV Objects

- Function
  - File
  - Global Logic
  - Layout Exceptions
  - PROIV Reset Exceptions
  - SuperLayer Queue
  - SuperLayer Regen Exceptions
  - Logic to Logic

- Delete PROIV Objects

- Function
  - File
  - Global Logic
  - Queue Group
  - Distribution List

- Rename PROIV Objects

- Function
  - File
  - Global Logic

- Exporting and Importing Objects

- Export

- Function
  - File
  - Global Logic
  - Input Check
  - Value Variable
  - Global Message
  - Literal
  - GUI Component
  - List

- Import

- Function
  - File
  - Global Logic
  - Input Check



- Value Variable
- Global Message
- Literal
- GUI Component
- List
- Document Import File
- Search
  - For a SuperLayer String
  - By Queue for a SuperLayer String
- Search and Replace for SuperLayer Function
- Inquiry
  - Layout Exceptions
  - Queue List
  - Distribution List
  - PROIV Reset Exception
  - SuperLayer Regen Exception
- PROIV Explosion
- SuperLayer Explosion
- Rebuilding Queue Group
- Resequencing Function
- SuperLayer Logic Editor

## **32. PROIV File System Utilities**

File Dependent Utilities

- iscl
- isin
- iskey
- isout

PRO-ISAM File Utilities

- ischk
- ispack
- isview

## **33. cron utility**

Purpose

Scheduling cron jobs

- crontab entry

glovia.com Function keys HEX Values

glovia.com User Defined Function keys HEX Values

glovia.com cron Example

## **34. glovia.com Customization Guidelines**

Overview

Database and Dictionary Standards

Function Standards

Custom Environment Control Guidelines

## **35. Oracle Backup and Recovery**

Backup Methods

Logical Backups

- Export
- Import
- Physical Backups
  - Cold Backups
  - Hot (ARCHIVELOG) Backups
- Performing Online Database Backups