Reliance Infrastructure Limited

RELGIS-External SCADA_ID's Population Tool ver 1.00

Design Document

Design Document Version 1.00

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Prepared For: Mr. Uday Kale V.P, IT - GIS	Prepared By: Mr. Vedant Goyal, IT - GIS
Verified By: Mr. Pradeep Thomas Sr. Manager, IT - GIS	Approved By: Mr. Pradeep Thomas Sr. Manager, IT - GIS

REVISION HISTORY

Sr. No.	Date	Version No.	Description	Created/ Modified by	Revision Description
1	19 July 2010	1.00	Initial Draft prepared as per discussion with GIS Team	Mr. Vedant Goyal	Initial Draft.

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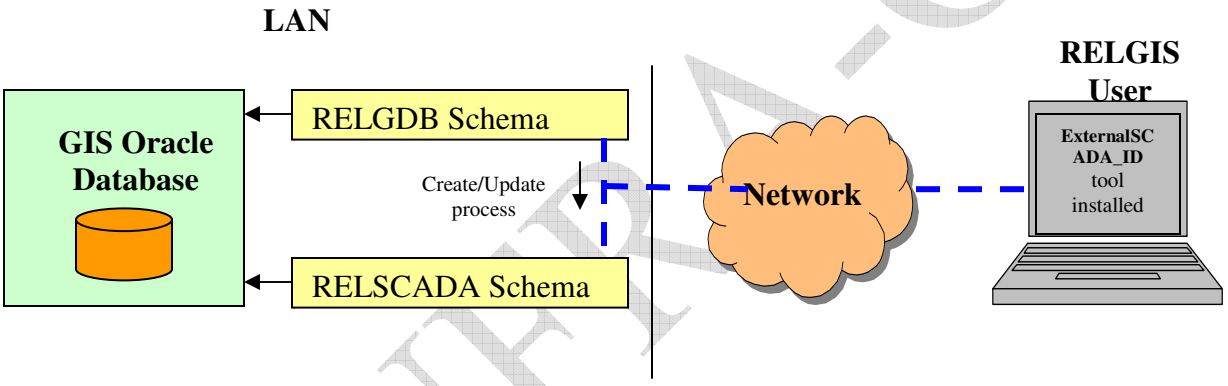
1. Design

1.1. Introduction

The Design Document serves as the business and technical specifications for the design and development of the windows based *External SCADA_ID's Population Tool*. This document contains the relevant information needed to develop and deliver the interface successfully.

This design approach describes a method by which *External SCADA_ID's Population can be* used.

1.2. System Structural Design



1.3. Behavioral Design

When the tool is run, the user would be presented with a GUI. The GUI has two important sub-parts

1. Oracle Connection
2. Geo-database Connection

User need to input valid connection parameters as demanded. The Oracle Connection would be used to populate External SCADA_ID's within the specified schema whereas Geo-database Connection details would be used to extract external SCADA_ID's of different switchgears (circuit breaker, switches etc.)

2. Architecture

2.1. System Architecture

Software architecture style for this tool is windows based database type application.

This section describes the *RELGIS - External SCADA_ID's Population Tool's* graphical user interface, its system dependencies, requirements and configurations.

RELGIS - External SCADA_ID's Population Tool' is a 1 step process, which works in three modules i.e. connecting to database where External SCADA_ID's are to be populated; connecting to database from where External SCADA_ID's are to be extracted; Create/modify respective required tables; update these tables and generate summary report.

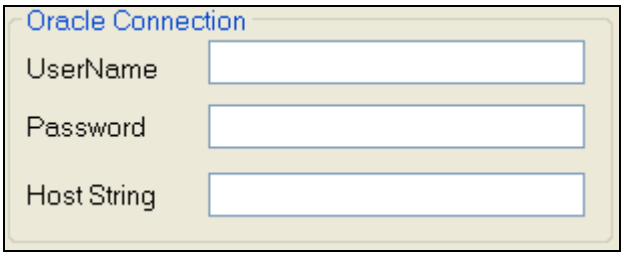
2.2. Components

2.2.1. Presentation/UI Components

RELGIS-Cable section and Pillar wise Load calculation Toolbar consists of two group boxes and one button command.

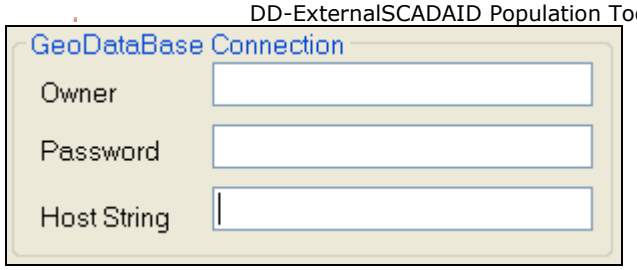
The user has to input the textboxes mandatorily before successful execution of the tool

- Oracle Connection Group Box



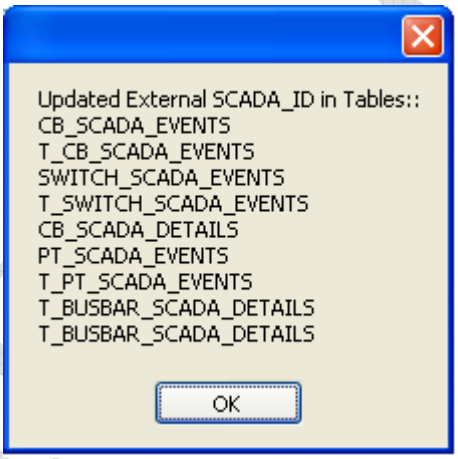
This connection strings details are used towards populating External SCADA_ID's in the given schema.

- GeoDatabase Connection



This connection strings details are used to extract all the features containing a valid External SCADA_ID's.

The user will input a valid connection strings and click "Connect". If the connection is successful the tool would perform its task. At the end of successful procedure completion a message box would appear giving a summary report. The summary would contain details of tables created/updated.



2.2.2. Data Storage Components

Data Tables created & their schemas	Table Created

2.3. Deployment

The *RELGIS - External SCADA_ID's Population Tool* can be deployed on a machine which can connect to GIS oracle database.

RELGIS - External SCADA_ID's Population Tool is a windows based self executable application and hence does not requires installation.

3. Source Code Organization

3.1. Overview

The *RELGIS - External SCADA_ID's Population Tool* is a windows application developed in Visual Studio C# .NET 2005.

3.2. Key Directories and Files in Developer Working Copies

The folder "External_SCADA_ID" contains the source code. Latest version is External_SCADA_ID v1.2. The folder "ExternalSCADA_IDv1.2" within main folder contains document, source-code, and installer folders relevant to the given version

4. User Interface

4.1. Overview

This section describes the *RELGIS - External SCADA_ID's Population Tool's* User Interface.

4.2. Interface Description

The user will be required to input valid connection strings relevant to oracle database connection. After entering above mention details, External SCADA_ID's would be populated in respective tables in interested schema.

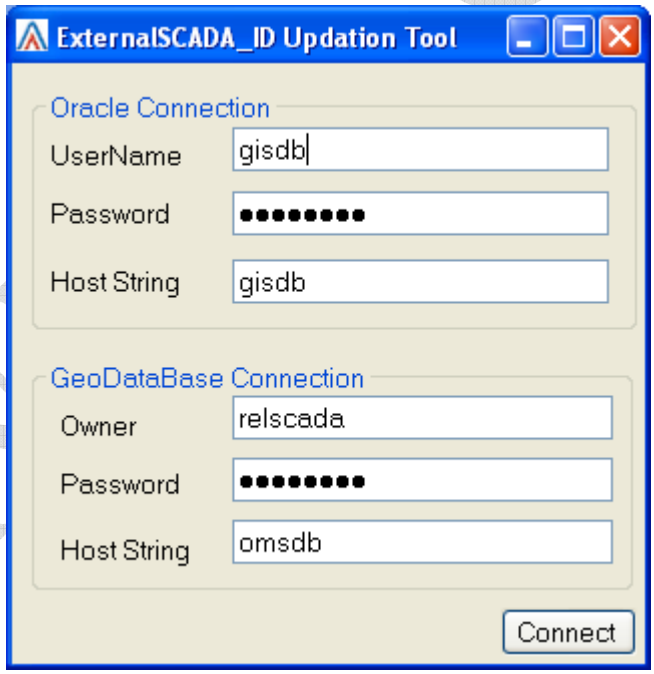


Fig4.2: External SCADA_ID Population Tool with inputs