DOWNTOWN LINE

Contract C955

InteGRATED SUPERVISORY

CONTROL SYSTEM (iscS)

DB Connection String revision specificaiton

**AMENDMENT RECORDS**

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# Introduction

The purpose of this document is to provide adequate information for configuring DB connection string for C955 project.

## Background

The DB connection string is for all agents to successfully connect to specified database. In C830 project, only Oracle database supported. In C955 project, however, it needs support multiple databases, such as MySQL and Oracle. Therefore, some new mechanisms are introduced and at the meantime the database connection string also need revised to adapt multiple databases.

## New solution

Currently, there are two configurations need revised for the new solution:

* CSV file at each station
* Transactive startup scripts

All database connection strings in C955 need follow the new rules to support the new solution. The following sections depict the details of how to revise and upgrade the existing configurations to adapt the new introduced solution.

# DB Connection String Configuration

## CSV File Configuration

In order to support both MySQL & Oracle, all the database connection strings need to revise based on the follow format:

* Old format

*Data Type, Data Action, Database, Schema, Password, Database, Schema, Password*

* New format

*Data Type, Data Action, DBType, Database, Schema, Password, Hostname, DBType, Database, Schema, Password,Hostname*

Note:

*DBType* and *HostName* have been introduced into new format;

*DBType* is used to identify database is Oracle or Mysql, if DB is Oracle, the value is “Oracle”; if DB is Mysql, the value is “Mysql”;

*HostName* is only for Mysql database; its value can be hostname or IP of Mysql DB server, it prefers hostname.  Its value should be empty for Oracle DB;

The new format does not change any business logical, like Data Type, Data Action and the access order of database. The C830 CSV file should be a source to do the upgrading.

Examples: (tra\_dt17 is Mysql DB installed on 192.168.2.171 & 192.168.2.172 , transact is oracle DB)

1. **Three DB connections (C955 site environment, support MYSQL failover)**

Old format:

Not support.

New format:

*Data Type, Data Action, DBType, Database, Schema, Password, Hostname, DBType, Database, Schema, Password, Hostname, DBType, Database, Schema, Password, Hostname*

**MySQL DB at the first place, the format shown below:**

*Event\_Ad,Read,Mysql,TRA\_DT17,IT271350\_5,IT271350\_5,192.168.2.171,Mysql,TRA\_DT17,IT271350\_5,IT271350\_5,192.168.2.172,Oracle,TRANSACT,IT271350\_5,IT271350\_5****,***

**Oracle DB at the first place, the format shown below:**

*Event\_Ad,Read, Oracle,TRANSACT,IT271350\_5,IT271350\_5****, , Mysql****, TRA\_DT17, IT271350\_5, IT271350\_5, 192.168.2.171,Mysql,TRA\_DT17,IT271350\_5,IT271350\_5,192.168.2.172*

Note:

The “***,***” cannot be omitted if Oracle DB is the second database;

One more “***,***” is needed if Oracle DB at the first place.

**For supporting MySQL failover mechanism at stations, both of the MySQL connection strings should put together.**

1. **Two DB connections ( Don’t support MYSQL Failover)**

Old format:

*Data Type, Data Action, Database, Schema, Password, Database, Schema, Password*

*Event\_Ad, Read, TRANSACT, IT271350\_5, IT271350\_5, TRA\_DT17, IT271350\_5, IT271350\_5*

New format:

*Data Type, Data Action, DBType, Database, Schema, Password, Hostname, DBType, Database, Schema, Password, Hostname*

**MySQL DB at the first place, the format shown below:**

*Event\_Ad,Read,Mysql,TRA\_DT17,IT271350\_5,IT271350\_5,192.168.2.171, Oracle, TRANSACT, IT271350\_5, IT271350\_5****,***

**Oracle DB at the first place, the format shown below:**

*Event\_Ad, Read, Oracle,TRANSACT, IT271350\_5,IT271350\_5****, , Mysql****, TRA\_DT17, IT271350\_5, IT271350\_5, 192.168.2.171*

Note:

The “***,***” cannot be omitted if Oracle DB is the second database;

One more “***,***” is needed if Oracle DB at the first place.

1. **One DB connection (Test only)**

Old format:

*Data Type, Data Action, Database, Schema, Password, Database, Schema, Password*

*Event\_Ad, Read, TRANSACT, IT271350\_5, IT271350\_5****, , ,***

New format:

*Data Type, Data Action, DBType, Database, Schema, Password, Hostname, DBType, Database, Schema, Password, Hostname*

*Event\_Ad, Read, Oracle, TRANSACT, IT271350\_5, IT271350\_5****, , , , , , (6 comma)***

*Event\_Ad, Read, Mysql, TRA\_DT17, IT271350\_5, IT271350\_5, 192.168.2.171* ***, , , , , (5 comma)***

## Transactive scripts

The db-connection, central-database and monitored-database are also need to be revised based on the new format in the transactive start up scripts.

Old format:

*Database:Schema:Password*

New format:

*DBType:Database:Schema:Password:Hostname*

For example (tra\_dt17 is Mysql DB, transact is Oracle DB):

Old format:

*TRANSACT:IT271350\_5:IT271350\_5*

*TRA\_DT17:IT271350\_5:IT271350\_5*

New format:

*Oracle:TRANSACT:IT271350\_5:IT271350\_5:*

*Mysql:TRA\_DT17: IT271350\_5:IT271350\_5:DT17-CMS-01*

# Appendix

## CSV file template

The follow is the template csv file configuration:

