WAREHOUSE MANAGEMENT SYSTEM

CRiSTAL WMS Installation Guide

Note: This document is written based on the Enterprise version of CRiSTAL Warehouse Management System. Some of the functionality described may not be available in the other versions.

1. INSTALLING CRiSTAL WMS

Installation of CRiSTAL WMS is done by using a backup of the *cristalwms* database.

2 databases are usually installed for each site:

> 1. Production   : cristalwms
>
> 2. Training   :cristalwms_training

A third database may be installation for major client – cristalwms_test. The purpose of this database is to enable the users to carry out user acceptance tests for major upgrades.

Installation of more databases than mentioned above unless explicitly agreed by CRiSTAL Solutions is deemed to be a breach of Copyrights Law.

The Standard edition of the Microsoft SQL Server is adequate to meet most sites requirement. However, the Enterprise edition would be needed if the site requires database replication to deploy for Disaster Recovery.

The installation procedures are:

1. Install Microsoft SQL Server with all patches
   a. Accept default configuration except for Authentication
      i. Change Authentication to Mixed mode
      ii. Set *sa* password to *cristal2001′*
2. Start SQL Server Mgt Studio
   a. Create the database by restorinf from the backup provided
      i. Select 'Force Restore' if necessary
3. Create following user and assign the appropriate right
   a. Create login ID
      i. User ID – *warehousechk*
      ii. Password – *abcd_1234*
      iii. Right - *public*
   b. Database Owner ID
      i. User ID – *warehousedbo",*
      ii. Password – *cristal2001*
      iii. Right – *public and owner*
   c. Initialise Connection
      i. Run the script in Query Analyser

      sp_dropuser warehousechk

      go

      sp_adduser warehousechk

go

sp_changedbowner warehousedbo

go

4. Installing the client Stations

   a. The CRiSTAL WMS application is sometime installed and deployed on an application server

      i. This is usually in done for major deployment to facilitate maintenance and upgrading

      ii. However, the station that need to run the CRiSTAL WMS has to has the installation done once to install the DLLs that is needed by the application.

      iii. A shortcut (to the EXE) is then created on each of the station.
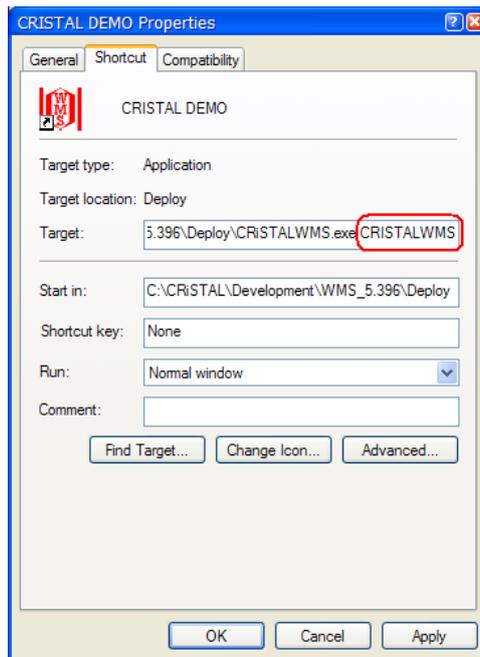
      iv. Ensure that the DSN as circled above is added to the Target.

   b. Citrix Application Server Deployment

      i. When CRiSTAL WMS is deployed with Citrix or similar, it is necessary to install the application on the Citrix server only.

      ii. A shortcut is created to the EXE with the DSN added as above

   c. To install CRiSTAL WMS

      i. Start Setup in Setup folder

         – Follow the instruction on the screen

         – Copy "Reports" folder into c:/Program Files/Warehouse Management System

         – Copy "Help" folder into c:/Program Files/Warehouse Management System

         – Copy "Data" folder into c:/Program Files/Warehouse Management System

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      ii. A shortcut is then created to the EXE with the DSN added as above

5. Run "RegDB.reg" to update Windows Registry

    a. Make the Server IP address is specified correctly
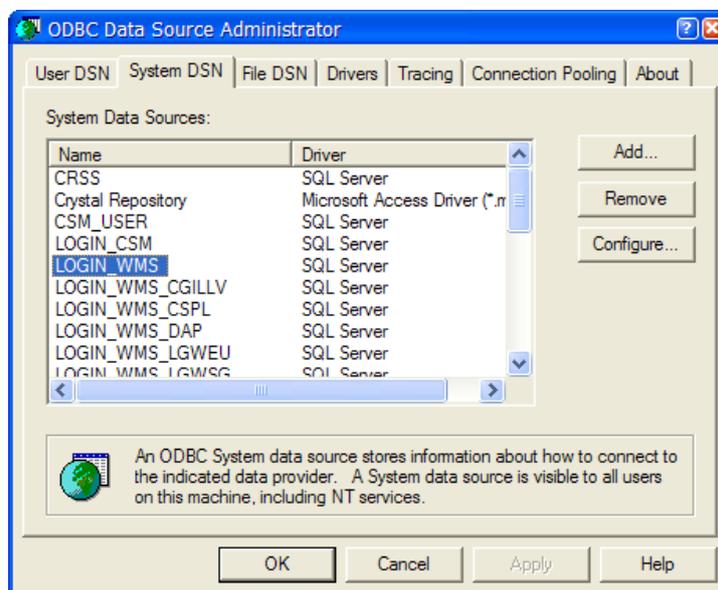
    b. This updates and set the ODBC connectivity

CRiSTAL WMS is ready for operation.
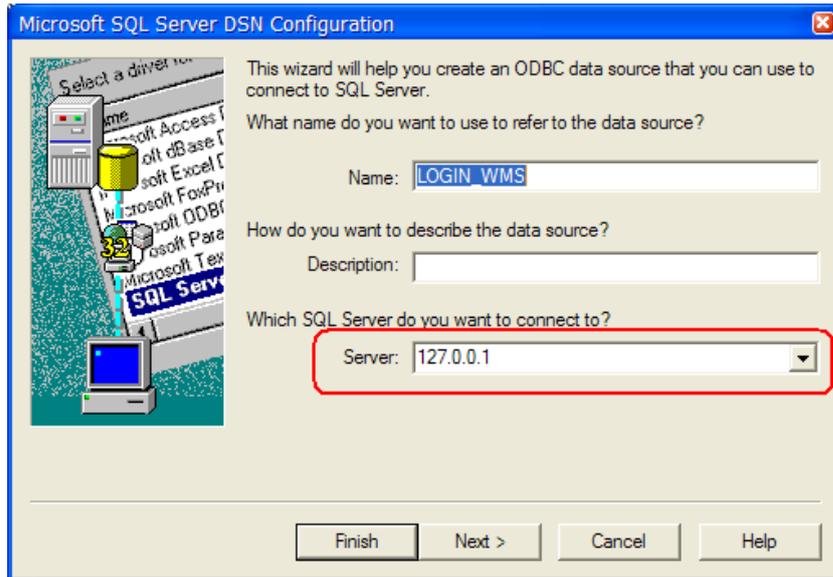
1.1. Updating Data Sources

WARNING: Do not use SPACE in the Data Source Name (DSN). Windows 2003 (and later) in combination with MS SQL 2005 (and later) terminate the name at the SPACE. This will result the problem prompt for DSN when starting the program.

However, in some rare occasion, it is necessary to complete the ODBC connectivity via the Administrative Tools | Data Sources (ODBC) options. The procedure described below is based on Windows XP.
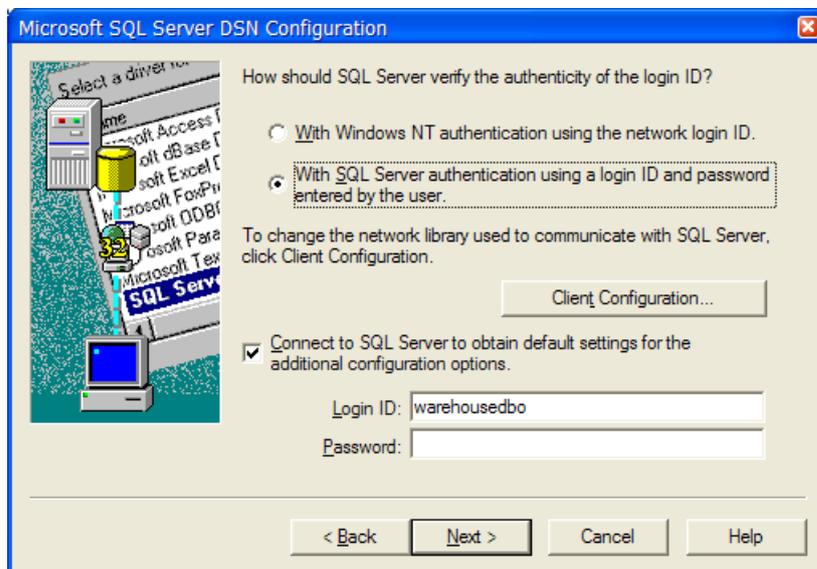
1. Start the utility and select System DSN

2. Select the DSN

    a. Usually named as LOGIN_WMS and WMS_USER

    b. Click on Configure and specify the Server (IP or name)

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c. Click Next

i. Click Client Configuration to ensure the Server alias and Server name (IP address) is correct

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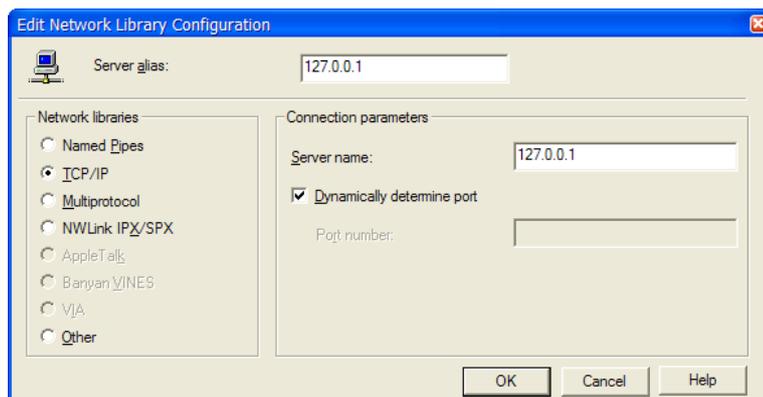
   ii. Select TCP/IP for Network libraries
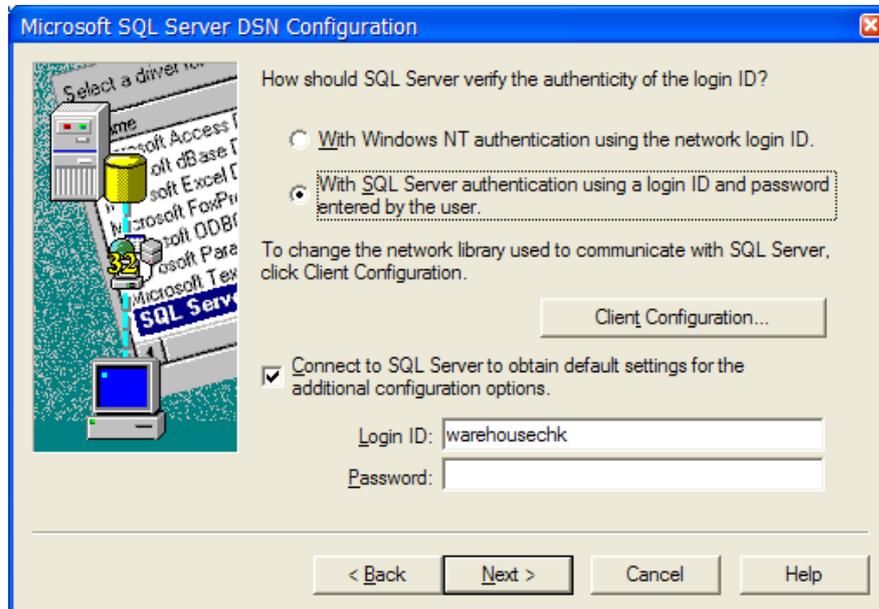
   iii. Checked Dynamically determine port

     – In some cases, it is necessary to specify a static Port Number – the default for Microsoft SQL Serve is 1433

   iv. Clock OK

 d. Choose *With SQL Server authentication…*

   i. Input the Login ID – *warehousechk*

   ii. Input the Password – *abcd_1234*

 e. Click Next
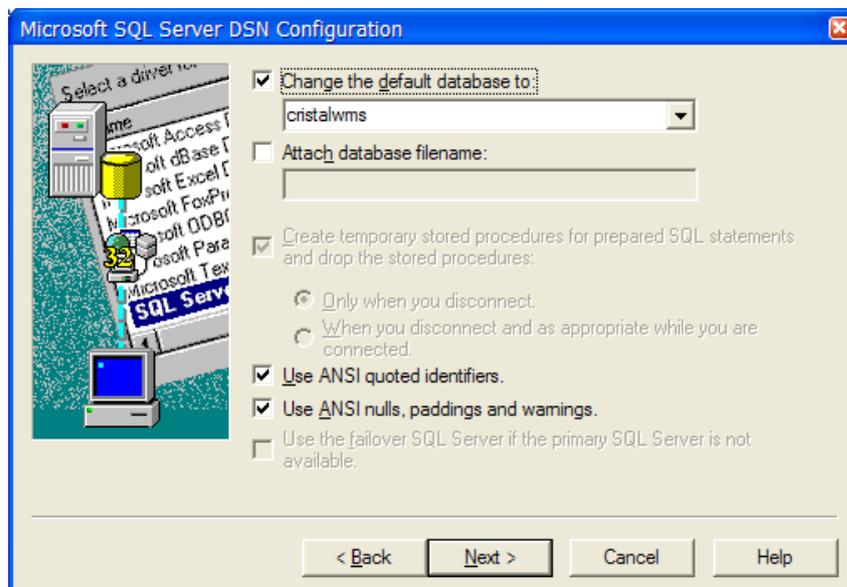
   i. Ensure the default database is correct

   ii. Checked *Use ANSI quotes identification*

   iii. Check *Use ANSI nulls, paddings and warnings*

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f. Click Next
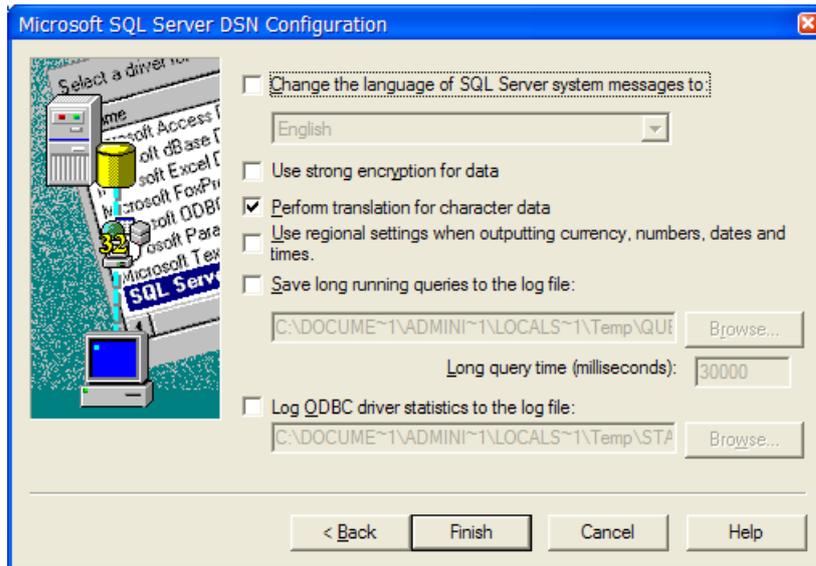
i. Checked Performance transaction for character data

g. Click Finish
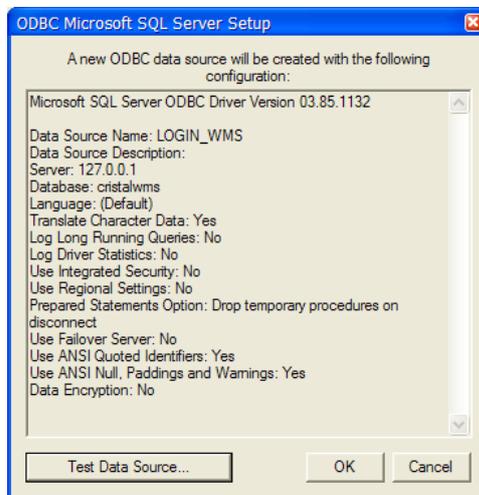
h. Click Test Data Source to ensure configuration is correct

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MANAGEMENT SYSTEM**
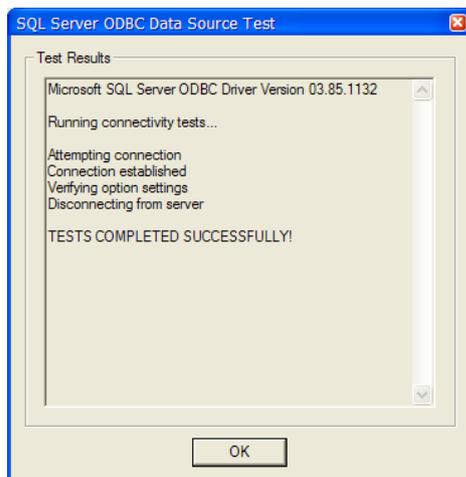
3. Repeat 2a to 2h for WMS_USER

    a.   In this case, the Login ID is *warehousedbo* and Password is *cristal2001*

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2. CRiSTAL SERVICES

The Enterprise edition, apart from the CRiSTAL WMS proper includes a number of supporting applications and services to facilitate collaborations required in today supply chains.

The services are:

1. AutoUpload

    a. This service is deployed to enable automated upload or import of interfaces from host or Client system

    b. The configuration of the service is as described in Auto Upload Setup.doc

2. AutoDownload

    a. This service is deployed to enable automated download or export of interfaces from host or Client system

    b. The configuration of the service is as described in Auto Upload Setup.doc

3. AutoEmail

    a. This service is deployed to enable automated emailing of messages and reports

    b. The configuration of the service is as described in AutoEmail and Email Reports.doc

4. PQServers

    a. This service is deployed to enable printed of label or reports from wireless (RF) PDA devices

5. WI Imports

    a. The is a application that is designed for purposes of manual uploading of data from Excel spreadsheet and CSV files.

    b. The functionality is described in WMS_Import.doc

    c. Although designed for manual uploading, the application can also be deployed to facilitate automated data upload by using batch file.

2.1. SQL Agent Job

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3. INSTALLATION OF RF WAREHOUSE

4. INSTALLATION OF WMSNET MODULE

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5. DATABASE BACKUP

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6. MOVING DATABASE TO NEW SERVER

The steps to move the database to a new server:

1. Install the new server OS with all necessary patches

2. Install MS SQL Server on machine with the latest patches

    a. Accept default configuration except for Authentication

        i. Change Authentication to Mixed mode

        ii. Set sa password to *cristal2001'*

3. Backup the database in the current server

4. Use Restore to create the database in the new server

5. Database Connection Setup

    a. Create login ID

        i. ID: *warehousechk*

        ii. PW: *abcd_1234*

    b. Database Owner ID

        i. ID: *warehousedbo*

        ii. PW: *cristal2001*

    c. Initialise Connection

        i. Run the script in Query Analyser

        sp_dropuser warehousechk

        go

        sp_adduser warehousechk

        go

        sp_changedbowner warehousedbo

        go

6. Change the new server IP address and Computer Name, if applicable, to that of the existing server.

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Appendix A. REGISTRY UPDATE SCRIPT

Below sample of the registry update script.

WARNING: Do not use SPACE in the Data Source Name (DSN). Windows 2003 (and later) in combination with MS SQL 2005 (and later) terminate the name at the SPACE. This will result the problem prompt for DSN when starting the program.

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