

WAREHOUSE MANAGEMENT SYSTEM

CRiSTAL WMS Installation Guide

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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.



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

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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
 - gо
 - sp_adduser warehousechk



gо

sp_changedbowner warehousedbo

gо

- 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.

CRISTAL DEMO Properties		
General Shortcut Compatibility		
CRISTAL DEMO		
Target type: Application		
Target location: Deploy		
Target: 5.396\Deploy\CRISTALWMS.exeCRISTALWMS		
Start in: C:\CRiSTAL\Development\WMS_5.396\Deploy		
Shortcut key: None		
Run: Normal window		
Comment:		
OK Cancel Apply		

- 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

💷 ODBC Data Source Admir	istrator	2 🛛	
User DSN System DSN File	DSN Drivers Tracing Conr	nection Pooling About	
System Data Sources:			
Name	Driver	Add	
CRSS	SQL Server		
Crystal Repository	Microsoft Access Driver (*.n	Remove	
CSM_USER	SQL Server	Carlana	
	SQL Server	Configure	
LOGIN WMS CGILLV	SQL Server		
LOGIN WMS CSPL	SQL Server		
LOGIN_WMS_DAP	SQL Server		
LOGIN_WMS_LGWEU	SQL Server	v	
LOGIN W/MS LGW/SG	SOI Server	-	
	· ·		
An ODBC System data source stores information about how to connect to			
the indicated data provider. A System data source is visible to all users on this machine, including NT services			
	oldang itt oorviooa.		
0	OK Cancel	Apply Help	

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





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licrosoft SQL Server DSN Configuration		
Select a diver in orthogonal Access of orthogonal Const orthogonal Const o	This wizard will help you create an ODBC data source that you can use to connect to SQL Server. What name do you want to use to refer to the data source? Name: LOGIN_WMS How do you want to describe the data source? Description: Which SQL Server do you want to connect to? Server: 127.0.0.1	
	Finish Next > Cancel Help	

c. Click Next

Microsoft SQL Server DSN Configuration			
Select a driver to me off Access off Access Access off Access	How should SQL Server verify the authenticity of the login ID? C With Windows NT authentication using the network login ID. C With SQL Server authentication using a login ID and password entered by the user. To change the network library used to communicate with SQL Server, click Client Configuration.		
	Connect to SQL Server to obta additional configuration option Login ID: warehouse	Client Configuration ain default settings for the s. dbo	
	< <u>B</u> ack <u>N</u> ext >	Cancel Help	

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

Edit Network Library Configuration			
Server <u>a</u> lias:	127.0.0.1		
Network libraries Named Pipes LCP/IP Multiprotocol NWLink IPX/SPX AppleTalk Banyan VINES VIA Qther	Connection parameters Server name: Dynamically determine port Port number:	127.0.0.1	
	0	K Cancel Help	



- 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

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d. Choose With SQL Server authentication ...

Microsoft SQL Server DSN Configuration	
Select a driver were the source of the login ID? With Windows NT authentication using the network login ID. With SQL Server authentication using a login ID and password entered by the user. To change the network library used to communicate with SQL Server, click Client Configuration. Client Configuration. Client Configuration options. Login ID: warehousechk Password:	
< <u>B</u> ack <u>N</u> ext > Cancel Help	

- 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



f. Click Next

Microsoft SQL Server DSN Configuration		
Select a dirver to ne soft Access I of dBase I soft Excel I in cosoft Excel I in cosoft Pore indicased For Price indicased For	Change the language of SQL Server system messages to: English Use strong encryption for data Perform translation for character data Use regional settings when outputting currency, numbers, dates and times. Save long running queries to the log file: C:\DOCUME~1\ADMINI~1\LOCALS~1\Temp\QUE Browse Log QDBC driver statistics to the log file: C:\DOCUME~1\ADMINI~1\LOCALS~1\Temp\STA Browse	
	< <u>B</u> ack Finish Cancel Help	

- i. Checked Performance transaction for character data
- g. Click Finish



h. Click Test Data Source to ensure configuration is correct





- 3. Repeat 2a to 2h for WMS_USER
 - a. In this case, the Login ID is *warehousedbo* and Password is *cristal2001*



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





3. INSTALLATION OF RF WAREHOUSE





4. INSTALLATION OF WMSNET MODULE





5. DATABASE BACKUP



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
 - gо
 - sp_adduser warehousechk
 - gо
 - sp_changedbowner warehousedbo
 - gо
- 6. Change the new server IP address and Computer Name, if applicable, to that of the existing server.





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.

