

Crystal Quality Business Optimization System Installation Guide

Crystal Quality Installation

Crystal quality has a fully automated installation package that install all the needed softwares and components. Double click on the "Crystal quality Full Installation Vx.xx.xx.exe"- setup will automatically start the installation.

In a case of just upgrade version, you can use the "Crystal Quality Service Pack Installation Vx.xx.xx.exe" instead of using the full Installation file.

Specification (CQ minimum requires):

System Capacity

TDM Recording - Up to 256 ch/server (512 ch / server with PCI Expansion Box), can be hybrid system VoIP Recording – Up to 512 ch/server, can be hybrid system Screen Recording – Up to 512 agent / server

Server Side

<u>Client Side</u>

Microsoft Internet Explorer 7 or above

Hardware:

CPU Type: Intel Core i3 more. Memory: 4G more. HDD: 500G more.

Software:

Operating System

Microsoft Windows XP Professional Microsoft Windows 2003 Server Microsoft Windows 7 Professional 32 bits/64 bits Microsoft Windows 2008 32 bits/64 bits Microsoft Windows 2008 R2 32 bits/64 bits Microsoft Windows Server 2012

Database

Microsoft SQL Server 2005 or above Oracle

Storage size

For Voice Recording: 5.62 MB/hour at Microsoft GSM 54.9 MB/hour at PCM 109 MB / hour at PCM 8K Stereo 13.7 MB / hour at MP3 3.6 MB/hour at G. 729a

For Screen Recording:

85 MB /hour at 800 X 600 24 bits true color 150 MB /hour at 1280 X 720 24 bits true color 165 MB /hour at 1280 X 720 24 bits true color 175 MB /hour at 1366 X 768 24 bits true color 225 MB /hour at 1600 X 900 24 bits true color 250 MB/hour at 1920 X 1080 24 bits true color

Installing Microsoft Windows OS:

a. Install a Microsoft windows operation system on your server (supported windows OS listed below):

- i. Windows XP professional SP3 (32 bit)
- ii. Windows 7 professional \ ultimate (32/64 bit)
- iii. Windows server 2003 STD \ ENT (32/64 bit)
- iv. Windows server 2008 STD \ ENT (64 bit)
- v. Windows Server 2008 R2 x64 Standard-Recommended

b. It is recommended to <u>install the windows OS in English language version</u> to avoid problems of compatibility, (time and currency format can be install in your domestic language).

No Install Windows	<u>- ×</u>
Windows Server 2008 RZ	
Languag <u>e</u> to install: English	
Time and currency format: Hebrew (Israel)	
Keyboard or input method: US	
Copyright © 2003 Microsoft Corporation. All rights reserved.	Next

c. As usually windows OS should be installing at (drive C :\),

it is recommended to create another partition in the hard drive (Drive D :\) for the system database, recording and log files.

😵 Install Windows	_ 🗆 🗙
Windows Server 2008	
Languag <u>e</u> to install: <mark>English</mark>	
Ime and currency format: Hebrew (Israel)	•
Keyboard or input method: US	
	Next

(Drive C must have minimum of 15GB disk space for proper operation of the windows OS.

d. After a successful installation of your windows OS you will need to install the following components and software:

- 1. Install all your server hardware device latest drivers.
- 2. Activate your windows product to verify that your windows copy is genuine for receiving windows updates and Microsoft support.
- 3. Install the latest service pack edition and Microsoft windows updates for your windows OS (recommended).
- 4. Set your local date and time zone.
- 5. Configure your network environment (it is recommended to use a static IP address for your crystal Quality server).
- 6. Install anti-virus software to protect your server and files.

e. Now after your windows OS is ready, you need to install first your SQL database prior to the Crystal Quality installation (if you use SQL on a different server you can skip this part), Crystal Quality require SQL database as follow:

- 1. MSSQL server 2005 / 2008 (32/64 bit)
- 2. Microsoft SQL express server 2005 / 2008 (32/64 bit)
- 3. Microsoft SQL 2008 R2 express server (64/86 bit) Recommended
- 4. Oracle SQL

Installing SQL database:

a. Open you SQL server installation file



	Extracting Files		×
	Extracting File: To Directory:	1033_enu_lp\x64\setup\sqlbrowser.msi c:\d2f6c535b3281d28720748	
SQLEXPRWT_x64_ ENU			

b. Click "Ok" to let the installation enable the .NET Framework role.

Microsoft	SQL Server 2008 R2 Setup	×
1	SQL Server 2008 R2 setup requires Microsoft .NET Framework and an updated Windows Installer to be installed. To enable the .NET Framework Core role, dick OK. To exit Setup, dick Cancel.	
	OK Cancel	

c. In the right pane click on "New installation or add features to an existing installation".

🍀 SQL Server Installation Center	
Planning Installation	New installation or add features to an existing installation. Launch a wizard to install SQL Server 2008 R2 in a non-clustered environment or to add features to an existing SQL Server 2008 R2 instance.
Tools Resources	Upgrade from SQL Server 2000, SQL Server 2005 or SQL Server 2008 Launch a wizard to upgrade SQL Server 2000, SQL Server 2005 or SQL Server 2008 to SQL Server 2008 R2.
Advanced Options	Search for product updates Search Microsoft Update for SQL Server 2008 R2 product updates.
SQL Server 2008 R2	

d. SQL server setup will prepare to install the support rules, Make sure that all rules status is "Passed" and then click "OK".



🍀 SQL Server 2008 R2 Setup		<u> </u>
Setup Support Rules		
Setup Support Rules identify probl before Setup can continue.	ems that might occur when you install SQL Server Setup support files. Failures must be corrected	
Setup Support Rules	Rule check in progress	
	Show details >>	Re-run
	ОК	Cancel

e. Accept the license terms and click "Next".

🍀 SQL Server 2008 R2 Setup	
License Terms To install SQL Server 2003	8 R2, you must accept the Microsoft Software License Terms.
License Terms Setup Support Files	MICROSOFT SOFTWARE LICENSE TERMS
	MICROSOFT SQL SERVER 2008 R2 EXPRESS WITH TOOLS MICROSOFT SQL SERVER 2008 R2 EXPRESS WITH ADVANCED SERVICES
	These license terms are an agreement between Microsoft Corporation (or based on where you live, one of its affiliates) and you. Please read them. They apply to the software named above, which includes the media on which you received it, if any. The terms also apply to any Microsoft
	updates,supplements,
	Internet-based services, and
	support services
	 I accept the license terms Send feature usage data to Microsoft. Feature usage data includes information about your hardware configuration and how you use SQL Server and its components. See the Microsoft SQL Server 2008 R2 Privacy Statement for more information.
	< Back Next > Cancel

f. Click on "Select All" for marking all the features to be installed, and then click "Next" (you can also change the installation path of SQL server in this screen or leave it as default).

🍀 SQL Server 2008 R2 Setup			
Feature Selection Select the Express with Advanced S	Services features to install.		
Setup Support Rules Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Error Reporting Installation Configuration Rules Installation Progress Complete	Features: Instance Features ✓ Database Engine Services ✓ SQL Server Replication Shared Features ✓ Management Tools - Basic ✓ SQL Client Connectivity SDK Redistributable Features		Description: Server features are instance- aware and have their own registry hives. They support multiple instances on a computer.
	Select All Unselect All Shared feature directory: C: F Shared feature directory (x86): C: F	Program Files (Microsoft SQL Server) Program Files (x86) (Microsoft SQL Server)	
		< Back Next	> Cancel Help

g. Click "Next" (you can also change the Instance name and path of SQL service in this screen or to leave it as default).

🍀 SQL Server 2008 R2 Setup					
Instance Configuration Specify the name and instance ID for	r the instance of SQL Serv	er. Instance ID become	s part of the installati	on path.	
Setup Support Rules Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Error Reporting Installation Configuration Rules Installation Progress	C Default instance Named instance: Instance ID: Instance root directory SQL Server directory: Installed instances:	SQLExpress SQLExpress : C: Program Files (Micro C: (Program Files (Micro	osoft SQL Server\ rosoft SQL Server\MS3	5QL10_50.SQLExpress	
Complete	Instance Name	Instance ID	Features	Edition	Version
			< Back	Next > Canc	el Help

h. Set Account name "NT AUTHORITY\SYSTEM" for the "SQL Server Database Engine" service and then click "Next".



i. Choose your Authentication mode add SQL Server Administrator user and then click "Next".



Database Engine Config Specify Database Engine authentica	uration tion security mode, administrators and data directories.
Setup Support Rules Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Error Reporting Installation Configuration Rules Installation Progress Complete	Account Provisioning Data Directories FILESTREAM Specify the authentication mode and administrators for the Database Engine. Authentication Mode • • Windows authentication mode • • Mixed Mode (SQL Server authentication and Windows authentication) Specify the password for the SQL Server system administrator (sa) account. Enter password: Confirm password: Specify SQL Server administrators WIN-IR93414B7PB\Administrator (Administrator) SQL Server administrators
	Add Current User Add Remove



j. Leave as default and click "Next"

🍀 SQL Server 2008 R2 Setup	
Error Reporting	
Help Microsoft improve SQL Serv	er features and services.
Setup Support Rules Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Error Reporting Installation Configuration Rules Installation Progress Complete	Specify the information that you would like to automatically send to Microsoft to improve future releases of SQL Server. These settings are optional. Microsoft treats this information as confidential. Microsoft may provide updates through Microsoft Update to modify feature usage data. These updates might be downloaded and installed on your machine automatically, depending on your Automatic Update settings. See the Microsoft SQL Server 2008 R2 Privacy Statement for more information. Read more about Microsoft Update and Automatic Update. Send Windows and SQL Server Error Reports to Microsoft or your corporate report server. This setting only applies to services that run without user interaction.
	< Back Next > Cancel Help

k. Setup is running, please wait until installation will be complete



I. SQL server was installed successfully, click "Close"

🍀 SQL Server 2008 R2 Setup	
Complete Your SQL Server 2008 R2 installation	completed successfully.
Setup Support Rules Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Error Reporting Installation Configuration Rules Installation Progress Complete	Summary log file has been saved to the following location: C:\Program Files\Microsoft SQL_Server\100\Setup Bootstrap\Log\20130527_053941\Summary_WIN- IR3)41487PB_20130527_053941.txt Information about the Setup operation or possible next steps: Your SQL Server 2008 R2 installation completed successfully. Supplemental Information: The following notes apply to this release of SQL Server only. Microsoft Update For information about how to use Microsoft Update to identify updates for SQL Server 2008 R2, see the Microsoft Update Web site at <u>http://qo.microsoft.com/fwlink/?LinkId=108409</u> . Samples By default, sample databases and sample code are not installed as part of SQL Server Setup. To install sample databases and sample code for non-Express editions of SQL Server 2008 R2, see the CodePlex Web site at <u>http://qo.microsoft.com/fwlink/?LinkId=37843</u> . To read about support for SQL Server sample databases and thtp://qo.microsoft.com/fwlink/?LinkId=37843. To read about support for SQL Server sample databases and The total sample code for non-Express editions of SQL Server 2008 R2, see the CodePlex Web site at <u>http://qo.microsoft.com/fwlink/?LinkId=37843</u> . To read about support for SQL Server sample databases and
	Close Help

 m. Now you will need to configure SQL server, open the "SQL Server Configuration Manager" via – click Start > All Programs > Microsoft SQL Server 2008 R2 > Configuration Tools > SQL Server Configuration Manager

Internet Explorer (64-bit) Internet Explorer Windows Update Accessories Administrative Tools Microsoft SQL Server 2008 R2 Microsoft SQL Server 2008 R2 Microsoft SQL Server 2008 R2 Import and Export Data (32-bit) Import and Export Data (34-bit) SQL Server Management Studio Configuration Tools SQL Server Installation Center (64-bit) SQL Server Installation Center (64-bit) Integration Services Oracle VM VirtualBox Guest Additions Startup Back Search programs and files Start Start Crystairs	Administrator Documents Computer Network Control Panel Devices and Printers Administrative Tools Help and Support Run	Sql Server Configuration Manager File Action View Help Image: Sql Server Configuration Manager (Local) Image: Sql Server Services Image: Sql Server Services Image: Sql Server Network Configuration (32bit) Image: Sql Server Network Configuration (32bit) Image: Sql Server Network Configuration (32bit) Image: Sql Native Client 10.0 Configuration Image: Sql Native Client 10.0 Configuration	Items SQL Server Services SQL Server Network Configuration SQL Server Network Configuration SQL Server Network Configuration	LIX

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		n				
		👼 Sql Server Configu	ration Manage	r		
		File Action View	Help			
		♦ ≥ 2 5 5	2			
		SQL Server Configur	ation Manage	P/IP Properties		? x
		SQL Server Serv	ices /ork Configur			
		🖃 📮 SQL Native Clien	t 10.0 Config	Protocol IP Addresses		
		Aliases	ols	General		
		🖃 📙 SQL Server Netv	ork Configur	Enabled Keep Alive		Yes
			t 10.0 Confid	Listen All		Yes
			-			
тср	/IP Propertie	5			? X	1
		,				
Pr	otocol IP Add	resses				
E	IP1					
	Active		Yes			
	Enabled		No		- 11	
	IP Address		fe80::c46	:4a36:db8c:3d4a%11		
	TCP Dynamic	Ports			- 11	
	TCP Port		1433			
E	IP2					his server instance
	Active		Yes			
	Enabled		No			Apply Help
	IP Address		192.168.1	. 17		pane expand "SQL Server
	TCP Dynamic	Ports				Network Configuration" and then click on "Protocols
	TCP Port		1433			for SQL", then on the right pane double click on
E	IP3					"TCP/IP"
	Active		Yes			
	Enabled		No			o In the "TCP/IP" properties under the
	IP Address		::1		-	"Protocol" page change the "Enable" protocol to
Т	CP Port					"Vos" and under the "ID Addresses" name change all
T	CP port					the "TCD Dent" to "1422" environment define much and (f
						the "ICP Port" to "1433" or your predefine number (if
						you change the default port number other than
		~		Analy 1	_	"1433" make sure to change it also in the CL database
		Can		Арріу Не	φ	configuration screen), when done click "Ok"

In order for the charge to take offerst serve	TCP/IP Properties	<u>?</u> ×
will heed to restart the "SQL Server" service,	Protocol IP Addresses	
Will leted to restart the SQL Server Service, to restart the service click on the "SQL Server Services" in the left pane and then restart the "SQL Server" service in the right pane Sql Server Configuration Hanager Image: Sql Server Configuration Hanager (Local) Sql Server Services Sql Server Network Configuration (32bit) Protocols for Sql Server Network Configuration Protocols for Sql Server Network Configuration Sql Native Client 10.0 Configuration		Yes No 2001:0:9d38:6ab8:cf0:3850:5601 0 1433 Yes No fe80::cf0:3850:5601:b848%13 0 1433 0 1433 Cancel Apply Help
Restart (stop and then start) selected service.		

Start CQ Installation:

Before starting the CQ installation you must to change fire wall and UAC settings as detailed below,

• <u>Turn off the UAC:</u>

UAC is a feature in windows that can help you stay in control of your computer by informing you when a program makes a change that require a permission level manager. UAC works by adjusting the permission level of your user account.

When changes that require director level permission about to be made to your computer, UAC notifies you. If you are an administrator, you can click 'yes' to continue. If you are a manager, someone with an administrator account will have to enter his password before continuing. You get only a temporary administrator rights to complete the task and then your permissions are returned back to the normal user.

- <u>Changing fire-wall blocking ports setting:</u> In data communication, firewall is a system for monitoring and blocking unwanted engagement to the communications network or to a single computer. Before installation Crystal Quality recording system you must to open the blocked for CQ ports.
- 1. Double click on the "Crystal Quality Full Installation vX.X.XX.XX.exe". Choose preference installer language, Click 'OK'.



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2. Following installation screen appears, Click 'Next'.

x

	Welcome to the Crystal Quality Setup
	Setup will guide you through the installation of Crystal Quality.
Ö	It is recommended that you close all other applications before starting Setup. This will make it possible to update relevant system files without having to reboot your computer. Click Next to continue.
	Next > Cancel

Crystal Quality Set	
crystar Quality Set	
	License Agreement
	Please review the license terms before installing Crystal Quality.
Press Page Down to	see the rest of the agreement.
CIS Software Licen	se Agreement
DOWNLOADING OF	SOFTWARE LICENSE AGREEMENT CAREFULLY BEFORE
DOWNLOADING OF BY CLICKING ON TH PRODUCT, OR USII CONSENTING TO BI THE TERMS OF THI INSTALLATION PRO OF PURCHASE FOR Customer agrees th	SUP IWAYE LICENSE AURCEMENT CARCEPULT BEFORE USING THE SOFTWARE. IE "ACCEPT" BUTTON, OPENING THE PACKAGE, DOWNLOADING THE IE OLODE STILL AND ALL AND ALL AND ALL AND ALL AND ALL IS ONLO BY THIS AGREEMENT. IF YOU DO NOT AGREE TO ALL OF BOUND BY THIS AGREEMENT. IF YOU DO NOT AGREE TO ALL OF S AGREEMENT, CLICK THE 'DO NOT ACCEPT' BUTTON AND THE CCSS WILL NOT CONTINUE, RETURN THE PRODUCT TO THE PLACE A FULL REFUND, OR DO NOT DOWNLOAD THE PRODUCT. Int aspects of the licensed materials, including the specific design and ~
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4. When, the following screen appears, choose install location, Click 'Install'.



5. Wait a few seconds, Crystal Quality Setup installation interface appears.

-	retal Live 😟 Satur	
I y	Stal Live Selop http://www	.crystairs.
	Create Database Tables	
8	Check IIS Environment	
	Install IIS (Windows 7, Windows Server 2008, Windows Server 2008 R2)	
10	Register ASP.NET for IIS (x64)	
	Find the App Pool in IIS AppPools	
	Create Virtual Directory or Site in IIS	
1	Check Wibukey Driver Installation (x64)	
	Install Wibukey Driver (x64)	
	Check Wibukey Driver Start Mode	
	Undate Wibukey Driver Start Mode	

SQL	. Server	C Oracle	•	l n	
erver name: local	nosť			1	It is necessary to add Serve
Authentication					Password.
UserName:	sa				
Password:	<u>.</u>	Tes	st Connection		After it Test Connection.
Fasswurd.		16:	a connection		

6. Fill in the database details (server name, username and password), Click 'Test Connection'.

Just after test connection successfully, click at first ' Create or Update' button, secondly 'Set to Config'.

🕻 Database Conne	ction	
@ S(QL Server	O Oracle
Server name: loca	alhost	
Authentication	-	×
UserName:	Connection successful	
Password:		Test Connection
Close		Create or Update

7. After the database is successfully create, the following screen appears, Click 'yes'.

D	o you want to re-install IIS anyway?
It	seems that the IIS has already been installed.
If	vou have installed Crystal Live before and the Crystal Live web un well, please click "No".
If	⁴ you are installing Crystal Live first time or the Crystal Live web
h	as something wrong, please click "Yes".

8. Please select a default Web site, and click on 'Select'.

🐞 IIS Site Selectio	on				×
Site	Binding	Status	Virtual Directory	URL	
Default Web Site	80	started		http://localhost/	
Default Web Site	80	started	cl	http://localhost/cl/	
Site Name:		Bindi	ng Port:	Add	Select

9. Entrance to configuration tools:

User name: admin

Password: admin



<u>Record server IP</u>: 127.0.0.1(local host) <u>Port:</u> 8001(Communication Port). Click 'OK'.



10. Pleas click on 'Record Server', the panel will show up on the black screen.





10.2. <u>Define an</u>	address property (MA	AC/	<u>'IP)-just in VOIP re</u>	ecording!			
Multiline mode:	One file		Digits priority i	in Caller/Ca	lled ID		
Call on hold:	Silence		Address Priority:	MAC		- 🕕	
Extension M	obility			IP MAC			
10.3. <u>Select the</u>	e protocol type,						
	Automatic SIP Skinny AVAYA Panasonic Nortel MGCP Tadiran MGCP RTP						
Multiline mode: Call on hold:	Alcatel Motorola Radio Avaya DMCC Cisco BIB Shoretel Aastra Tcp SIP		✓ Digits priority ir Address Priority:	n Caller/Call	ed ID -		
Protocol 1:	Siemens SIP ·	- 1	PBX IP:		Port: Port:	5060 5060	

CIS

10.4. Define an extensions according to the recording type (VOIP/TDM),

- VOIP Exte	insion					
Add exten	ision count:		1 🗘 Start from:	Copy from: 18200		
			Phone Address	PBX Protocol	Startup Type	
• 💌	18200	101001	b4:a9:5a:ab:9b:e8	Protocol_1:AVAYA	CTI Control	
	18201	101002	b4:a9:5a:ab:99:cd	Protocol_1:AVAYA	CTI Control	
	18202	101003	b4:a9:5a:ab:9b:03	Protocol_1:AVAYA	CTI Control	VOIP extensions.
	18203	101004	b4:a9:5a:ab:9b:a2	Protocol_1:AVAYA	CTI Control	
	18204	101005	b4:a9:5a:ab:9b:e0	Protocol_1:AVAYA	CTI Control	
	18205	101006	b4:a9:5a:ab:9b:9e	Protocol_1:AVAYA	CTI Control	
	18206	101007	b4:a9:5a:ab:9b:c5	Protocol_1:AVAYA	CTI Control	
	18207	101008	b4:a9:5a:ab:9b:b1	Protocol_1:AVAYA	CTI Control	
	18208	101009	D418915818D19D1CC	PTOTOCOL_1:AVATA	C 11 Control	
	18209	101010	b4:a9:5a:ab:9b:6a	Protocol_1:AVAYA	CTI Control	
	18210	101011	h4·a9·5a·ah·9h·84	Protocol 1.4VAYA	CTT Control	
Start from						Extension Count:
	- Ext			Threshold Low Threshold I	i High AGC Gain 🖉 Startup Type	
						TDM extensions.

11. When following interface appears, click 'Close'.

🏅 Crys	stal Live Setup	×
Cry	ystal Live 🥸 Setup	http://www.crystalrs.com
Installi	ng Components:	
	Install Record Service	*
~	Install Data Service	
1	Install Alarm Service	
1	Install Data Service Configuration	
1	Install CAPICOM Tool for SSL	
1	Install Certificate for SSL	
1	Start Record Service	
1	Start Data Service	_
1	Start Alarm Service	
1	open Configuration Tool	•
Compl	leted	Cancel Close

12. Input the selected URL (default URL http://localhost), appear as home page, Login into the system.

← → C 🗋 localhost/Lo	ogin.aspx			
Crystal Quality 오				
	X			
		简体中文	*	
		登陆		

Setting configuration:

<u>Common Tab</u>

Add the server IP Address and click on the 'refresh' button. The server should recognize automatically the defined network cards.



CIS

field name	default value	description
Communication port	8001	
Record Port	8002	
Monitor Port	8003	Number's definition of the six
Proxy Port	8004	port the CQ work with.
Alarm Port	8005	
SDK Port	8006	
Log File Directory	D:\Crystal Live Storage\	Full path of saving the logs files.
Voice Save Directory	D:\Records\voice\	Full path of saving the recording files.
Screen save directory	D:\Records\Screen\	Full path of saving the screen recording files.
File Name Format	#StartDate#\#Extension#\#StartTime#_#Extension#	
File Encryption	off	
Record Length	min: 00:00:00 , max: 00:00:00	The minimum and maximum length of call to create a recording file by the system.
Have Dongles	on	
Encoder	mp3	Type of format the recording files will save.
Multiline mode	One File	
Digits priority in caller/called id	Checked	
Call on hold	Silence	
Address priority	MAC	The option to choose between MAC or IP address in case of VoIP recording.
Extension mobility	Not Checked	Check just in case of extension mobility.
Protocol 1	SIP	Type of recording protocol.

• <u>Extension</u>

Add

Image:

</tabl

• VoIP extensions:

The upper screen is designed to add VoIP extensions.

Add extension count-number of VoIP extension to add.

Start from- first number of extension the system will create.

Copy from-choose the extension number, and click on 'copy from' the fields 'PBX Protocol' and 'Startup Type' will copied to the subsequent extensions.



<u>TDM extensions:</u>

At the bottom of the screen, appear the open channels (SN) boards you should to define in the CQ recording system by giving an extension number.

• Trunk Channel



Record	l Server Configur	ation	
ecord Service			
Common		The option to add VOIP Trunk	
Extension			
Trunk Channel			
Recycle			
Alarm			
Screen & CG			
		Truck Sk	Etemion Channel (D Channel SN
		The option to add TDM Trunk (like I	Channel D Channel St
		The option to add TDM Trunk (like F	PRI)
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		The option to add TDM Trunk (like F	PRI)
		The option to add TDM Trunk (like F	PRI)
		The option to add TDM Trunk (like F	PRI)

<u>Recycle</u>

Reco	rd Server Configuratic	ึงท
Record Service	Recycle Configuration	
Common	Voice Record File Recycle	
	Start to delete files when reach	2 🗘 GB
Extension	Stop to delete files when reach	1 🌲 GB
Trunk Channel	Records keep	
Recycle		1 📜 GB 🕖
Alarm	Screen Record File Recycle	
	Records keep	30 🌲 Days 🕕
Screen & CG	Save directory use maximum space	
	- DataBase Recycle	
	Recycle start time	
	Records keep 1000	Records

- In Crystal Quality system under settings recycle you have the ability to define separate setting for:
 - Voice recording.
 - Screen recording.
 - Data base (SQL).

The Recycle works in a way that it deletes completely the records from the directory path on the server-and not from the Data Base.

There are two optional alternatives to define the recycle way of work:

- CIS
- 1. Start to delete files when reached/ Stop to delete files when reached

Start delete recordings when the free space on the disk reaches to the minimum size define,

and stop delete when it comes to the maximum free space.

2. Records keep

Keeps recordings back, depending of the specified number of days.

• <u>Alc</u>	arm		
Record	d Server Configuration		
Record Service Common Extension Trunk Channel Recycle	Alarm Configuration Mail Server Settings Server Address Server Port: 25 Exchange Type: Exchange2007 SPL =	Use SSL: 0FF Mail Account Mail Pessword	The alarm sender details.
Alarm Screen & CG		List of alarm receiver. Separate between the E- mail addresses by a comma (",").	

The alarm e-mail service supporting 3 type of servers:

- 1. SMTP(server port-25)
- 2. Gmail(server address-smtp.gmail.com, server port-578)
- 3. Exchange

•

Screen & CG

Recor	d Server Co	nfigu	uratior	١		
	Screen Record and	CG Onlin	e Configur			Arms a
Common	Screen Configuration				CG Online Configura	tion
Extension	File Quality:	🔲 High	🗹 Meduim		File Format:	#StartDate#\#Extension#\#StartDate##StartTin
Trunk Channel	Frequency:(Frame/S) Monitor Port:	✓ 1 4510			Save Directory: Archive Directory:	D:\Records\
Recycle					File Encryption	
Alarm					🔲 Always Popup	
Scroop & CC					Always Show Ar	nnotate
Screen & Co					🗹 Always Upload a	after recording
					Upload time at: 2	23:00:00
					Upload rate:	1024 🗘

Screen Configuration:



field	default value	description
File Quality	Medium	
Frequency Frame	1	
Monitor Port	4510	

CG Online Configuration:

<u>field</u>	deafult value	description
File Format	#StartDate#\#Extension#\#StartTime#_#Extension#	
Save Directory	D:\Records\	
Archive Directory		
File Encryption	check	
Always Popup		
Always Show Annotate		
Always Upload after recording	check	
Upload time		
Upload rate	1024	

Windows Updates

Windows updates are software additions that can help to prevent problems, improve the computer operation and optimize the security of your computer.

The easiest and effective way to install updates is to turn on the automatic updating.

Control Panel -> Windows Update -> Check for updates and install updates.

	Windows Update	
(e) → ↑ (s) + 0	ontrol Panel > System and Security > Windows Update v C	Search Control Panel 🔎
Control Panel Home		0
C1 1 () 1 1	Windows Update	
Change settings		
View update history	Check for updates for your PC	
Restore hidden updates	performance.	
	Check for updates	
	0/12/2014 - k10-24 DM	
	Updates were installed: 9/12/2014 at 8:22 AM.	
	You receive updates: For Windows and other products from Microsoft Update	
See also		
Installed Updates		
😵 Add features to Window	rs 8	
0 items		📜 Computer
r	of the local sector sector before the	
🔾 🗢 🖉 « All	Control Panel Items 🔸 Windows Update 🔸 Change settings 🗾 👻 👍 Search Con	trol Panel 🔎
		*
0	hoose how Windows can install updates	
v	hen your computer is online, Windows can automatically check for important updates and install the	m
u	sing these settings. When new updates are available, you can also install them before shutting down the	he
	ow does automatic updating help me?	
I	nportant updates	
	Install updates automatically (recommended)	
	Install updates automatically (recommended)	
	Install new updates: Every day v at 03:00 v	
F	Install updates automatically (recommended)	=
F	Install updates automatically (recommended) Install new updates: Every day at 03:00 ecommended updates G Give me recommended updates the same way I receive important updates	E
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L.	Install updates automatically (recommended) Install new updates: Every day at 03:00 commended updates Give me recommended updates the same way I receive important updates ho can install updates Allow all users to install updates on this computer	E
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F	Install updates automatically (recommended) Install new updates: Every day at 03:00 ecommended updates Give me recommended updates the same way I receive important updates Allow all users to install updates on this computer ficrosoft Update Give me updates for Microsoft products and check for new optional Microsoft software when update Windows oftware notifications	n I
F N N S	Install updates automatically (recommended) Install new updates: Every day at 03:00 ecommended updates Give me recommended updates the same way I receive important updates /ho can install updates Allow all users to install updates on this computer ficrosoft Update Give me updates for Microsoft products and check for new optional Microsoft software when update Windows software notifications Show me detailed notifications when new Microsoft software is available	n I
F S	Install updates automatically (recommended) Install new updates: Every day at 03:00 commended updates Give me recommended updates the same way I receive important updates Allow all users to install updates on this computer ficrosoft Update Give me updates for Microsoft products and check for new optional Microsoft software when update Windows oftware notifications Show me detailed notifications when new Microsoft software is available to Windows locate the data itself extent to the first when obtains for the start of the s	n I
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<u>Anti-virus</u>

The first step in protecting your computer from harmful viruses is to install anti-virus software. Anti-virus will protect better your computer from viruses, Trojans, worms and many type of pests. Update your anti-virus software program inform about new viruses and harmful viewed onlinethe software update takes only a few seconds.

Another important thing to perform with anti-virus software is scanning. It is recommended to scan the server once a week (in most anti-viruses can simply determine the dates of automatic scans).