



.: www.totalrecallvr.com :.

Total Recall VR LinX Evolution

Quick Start Guide

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Related Documents:

- [1] Prolancer Pty Ltd, Total Recall VR web site. Available from:
<http://www.totalrecallvr.com/>.
- [2] Prolancer Pty Ltd, Prolancer web site. Available from:
<http://www.prolancer.com.au/>.
- [3] Prolancer Pty Ltd, Total Recall VR Deployment User Guide, 15.0, November 2016
- [4] Prolancer Pty Ltd, Total Recall VR Remote Manager User Guide, 15.0, November 2016

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1. Preface

1.1. Conventions

Our guides use several conventions to highlight certain words and phrases and draw attention to specific pieces of information.

1.1.1. Notes & Warnings

We use the following visual styles to draw attention to information that might otherwise be overlooked:



Notes are tips, shortcuts or alternative approaches to the task at hand. Ignoring a note should have no negative consequences, but you might miss out on a trick that makes your life easier.



Important boxes detail things that are easily missed: configuration changes that only apply to the current session, or services that need restarting before an update will apply. Ignoring the information will not cause data loss, but may cause irritation and frustration.



Warnings should not be ignored. Ignoring warnings will most likely cause data loss.

1.1.2. Typographic Conventions

We use typographic conventions to call attention to specific words and phrases. These conventions, and the circumstances they apply to, are as follows.

Example	Meaning
Select <u>Guide</u> to display ...	Locate the link named "Guide" on the screen, position the cursor over the link and then depress the appropriate mouse button to follow the link.
Select Add to create a new ...	Locate the button or menu item named "Add" on the screen, position the cursor over the button or menu item and then depress the appropriate mouse button to initiate an action.

Enter <i>Commission</i> ...	Locate the field named "Commission" on the screen, position the cursor over the field and then depress the appropriate mouse button to select the field. Once the cursor appears in the field, enter a value.
Choose <i>Country</i> ...	Locate the field named "Country" on the screen, position the cursor over the field and then depress the appropriate mouse button to display the available options. Then position the cursor over the desired option and depress the appropriate mouse button to select it.
Tick <i>Active User</i> ...	Locate the check box named "Active User" on the screen, position the cursor over the check box and depress the appropriate mouse button to place a visual tick in the box.
Un-tick <i>Active User</i> ...	Locate the check box named "Active User" on the screen, position the cursor over the check box and depress the appropriate mouse button to remove the visual tick in the box.
Enter 3* ...	Enter "3*" using the keys on the numeric keypad.
Enter \$30.95 ...	Enter "\$30.95" using the keys on your keyboard.

1.1.3. Procedures

We use numbered sequence of steps to define procedures for performing certain tasks. For example:

Procedure Title

1. This is the first step of the procedure.
2. This is the second step of the procedure.
 - a. This is the first sub-step of step 2.
 - b. This is the second sub-step of step 2.
3. This is step three.

1.2. We Need Feedback

If you find a typographical error in this guide, or if you have thought of a way to make this guide better, we would love to hear from you.

Please submit your feedback using the feedback form on our web site:

<http://www.prolancer.com.au/contact/feedback>.

If you have a suggestion for improving the guide, then try to be as specific as possible when describing your suggestion. Otherwise, if you have found an error, please include the section number and some of the surrounding text so we can find it easily.

2. Introduction

2.1. Thank You

Congratulations on your purchase of a Total Recall VR professional audio logging and call recording system. Thank you.

Total Recall VR is a professional audio logging and call recording system which is self-contained, fully featured and cost-effective. Enterprises and governments worldwide use it to create electronic records of many forms of audio communication including telephone, 2-way radio, broadcast radio, public address, room microphones and much more.

2.2. About This Guide

This guide contains information intended to get you recording with your new Total Recall VR as quickly as possible.

However, to enjoy the maximum benefit from your purchase we recommend that you carefully read the following additional documents:

- Total Recall VR Deployment User Guide
- Total Recall VR Remote Manager User Guide

3. Pre Installation

3.1. Unpacking

Please use care and assistance when unpacking, lifting and moving Total Recall VR.



DO NOT DROP Total Recall VR. It contains sensitive electronic components.

Check the box for damage. A crushed box, holes, or water damage, for example, could indicate that Total Recall VR has been damaged. Open the box and inspect Total Recall VR and associated accessories.



If Total Recall VR appears damaged then contact your supplier, or us, right away. Save all packaging and if possible take photos that clearly show the damage to all packaging and Total Recall VR.

Check that you have received the following in the box, in addition to the Total Recall VR:

1. Power cord.
2. Cross over network cable.
3. Two front panel lock keys.
4. Disc that contains Total Recall VR manuals (including this one) as well as Total Recall VR client applications such as Remote Manager.
5. One page quick start guide.



If items are missing then contact your supplier, or us, right away to arrange replacements.



DO NOT misplace the front panel keys. They are unique to your system. Keep one in a safe place while using the other.

3.2. Front Panel

The front panel of your Total Recall VR features a lockable cover which prevents unauthorised access to the BluRay disc drive and the hard drives.



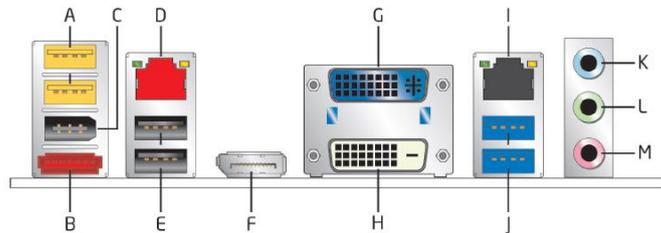
Item	Description	Note
A	Cover lock	Keep the keys in a safe place. They are unique to your system.
B	Power on/off button	A blue light around the power button indicates that the system is on.
C	Easy swap hard disk caddies	Two disks are used in RAID 1 configuration.
D	BluRay disc drive	Archive recordings to DVD and BD discs.
E	Reset button	
F	USB 3.0 ports	Connect a standard USB key to use as a Total Recall VR archive device.
G	Headphones in	Reserved for future use.
H	Microphone in	Reserved for future use.

3.3. Back Panel

The back panel of your Total Recall VR has a set of standard connectors. In addition, it has 4 expansion slots which are used, when necessary, to fit hardware for recording calls on ISDN links.

3.3.1. Standard Connectors

The following image shows the standard connectors that appear on the back panel of your Total Recall VR.



In summary:

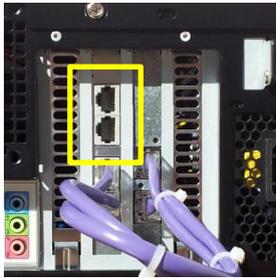
Connector	Description	Note
A	USB 2.0 high current charging ports	Connect a standard USB stick or disk drive to use as a Total Recall VR archive device.
B	eSATA connector	Reserved for future use.
C	IEEE 1394a connector	Reserved for future use.
D	LAN port	Total Recall VR 'LAN 1' port. We recommend you use this port to connect Total Recall VR to your enterprise LAN.
E	USB 2.0 ports	Connect a standard USB key to use as a Total Recall VR archive device.
F	DisplayPort connector	Reserved for future use.
G	DVI-I connector	Connect an external VGA monitor, if required during system maintenance.
H	DVI-D connector	Reserved for future use.
I	LAN port	Total Recall VR 'LAN 2' port. We recommend you use this port to record VoIP calls and RTP streams.
J	USB 3.0 ports	Connect a USB 3.0 stick or disk drive to use as a Total Recall VR archive device.
K	Audio line in	Reserved for future use.
L	Audio line out	Reserved for future use.
M	Mic in	Reserved for future use.

3.3.2. Expansion Slots

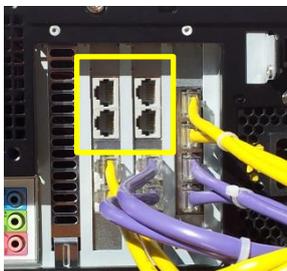
Your system may be fitted with hardware necessary to record calls on ISDN PRI links. The following images show the possible configurations of the expansion slots.



If your Total Recall VR has only VoIP recording channels, then blanking plates are fitted to all expansion slots. Total Recall VR does not need additional hardware to record VoIP calls.



The adjacent image shows the hardware required to record calls on one ISDN PRI E1/T1 link. Use the two RJ45 connectors to connect the ISDN PRI link.



The adjacent image shows the hardware required to record calls on two ISDN PRI E1/T1 link. Use each pair of RJ45 connectors to connect an ISDN PRI link.

4. Installation

4.1. Safety Information

Always follow basic safety precautions when installing Total Recall VR to reduce the risk of injury from electrical shock and fire.



WARNING: Potential shock hazard. Total Recall VR must be installed by qualified person.

Observe the following:

1. Read and understand all instructions in Total Recall VR guides.
2. Observe all warnings and instructions marked on the product.
3. Use only grounded electrical outlet when connecting Total Recall VR to a power source. If you are unsure the outlet is grounded, then have a qualified electrician check it.
4. First connect Total Recall VR to grounded outlet, and only then connect the appropriate interface lines.
5. Do not touch the contacts on the ends of any cables used with Total Recall VR. If any cable becomes damaged, then have it replaced immediately.
6. Shut down and unplug Total Recall VR from telephone jacks, and then from power outlets, prior to moving or cleaning.
7. Do not open Total Recall VR. There are no user serviceable parts inside Total Recall VR. Refer all servicing to qualified personnel.

4.2. General

Total Recall VR is computer equipment and in general has the same physical and electrical requirements as desktop PCs. Attention should be paid to their environment to assure long life and reliable operation.

4.3. Location

When choosing a location for your Total Recall VR, consider the following:

- **Convenience.** Make the unit accessible to operators and service personnel who need to access system.
- **Security.** User with access to the unit can remove power, disconnect cables and possibly compromise the recordings on Total Recall VR. Logins are no protection against determined attackers with physical access to the unit.

- **Operating environment.** Total Recall VR requires adequate cooling, clean and always on power source, vibration and shock free surface and protection from liquids.



DO NOT place Total Recall VR in an enclosed cupboard, a damp or dusty room or location with direct exposure to sunlight. Doing so will severely reduce the lifetime of your new Total Recall VR and void the warranty.

4.4. AC Power

Total Recall VR uses “universal” switching, AC to DC power adapter. This means you can plug the power adapter into any line (mains) voltage from 100 Volts to 240 Volts AC nominal.

However, to prevent unplanned shutdowns caused by power glitches or interruptions, we strongly recommend the use of an Uninterruptible Power Supply (UPS) unit.

Use only grounded electrical outlet when connecting Total Recall VR to a power source. If you are unsure the outlet is grounded, then have a qualified electrician check it.

4.5. Local Area Network

Connect Total Recall VR to an Ethernet network by attaching a network cable between the RJ45 jack (with label LAN 1 or LAN 2) on the back of Total Recall VR and a network switch. Use a standard CAT5, or equivalent, straight through cable.

Alternatively, use a crossover cable to isolate Total Recall VR from your network and connect it directly to the network connection of a PC (without using a switch). The default configuration of the Total Recall VR network interfaces is:

	LAN 1	LAN 2
IP Address	192.168.1.100	192.168.2.100
Netmask	255.255.255.0	255.255.255.0
VLAN ID	Not set	Not set

4.6. VoIP Networks

Total Recall VR uses a software based VoIP packet collector which is capable of detecting, extracting and then processing SIP, H.323 and RTP packets when connected to an Ethernet link.

The packet collector does not interact with the packets on the Ethernet link. It does not add, remove or modify packets. It simply detects and takes a copy of each packet for further processing.

Each Total Recall VR is equipped with single VoIP packet collector capable of collecting VoIP packets from a single Ethernet link.



Use the LAN 2 interface for capturing VoIP packets. This leaves the LAN 1 interface to all other network communication.

Ethernet switch SPAN port (or port mirroring as it is otherwise known) is by far the cheapest and easiest way to connect a Total Recall VR to a VoIP network for the purpose of recording. Even if your current Ethernet switch does not support it, myriad other switches, which cost not more than few hundred dollars, do support it.

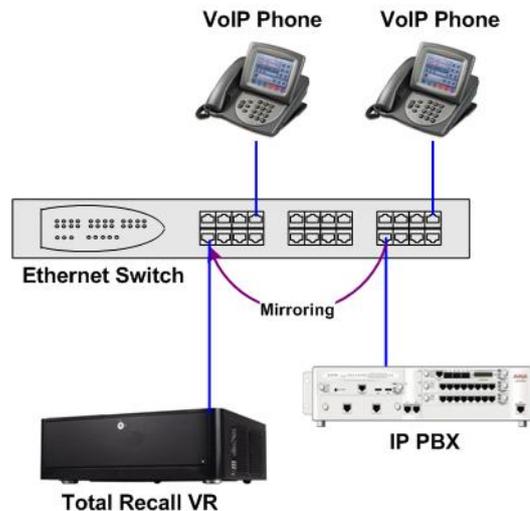


Figure 1: SPAN Port for VoIP Call Recording

SPAN ports may be the cheapest and easiest way to start recording VoIP calls and RTP streams; however in some cases it may be necessary to use other methods in order to record all VoIP calls and RTP streams on the network. The Total Recall VR Deployment Guide [3] explains all techniques in detail.

4.7. RoIP Networks

Total Recall VR is capable of recording audio carried in standard RTP and proprietary protocols (such as Tait VRP) that are extensively used by RoIP and AoIP system in passive and active mode.

In passive mode Total Recall VR uses a software based RTP packet collector which is capable of detecting, extracting and then processing RTP packets when connected to an Ethernet link.

The packet collector does not interact with the packets on the Ethernet link in any way. It does not add, remove or modify packets. It simply detects and takes a copy of each packet for further processing.

Ethernet switch SPAN port (or port mirroring as it is otherwise known) is by far the cheapest and easiest way to connect a Total Recall VR to a RoIP network for the purpose of recording. Even if your current Ethernet switch does not support it, myriad other switches, which cost few hundred dollars only, do support it.

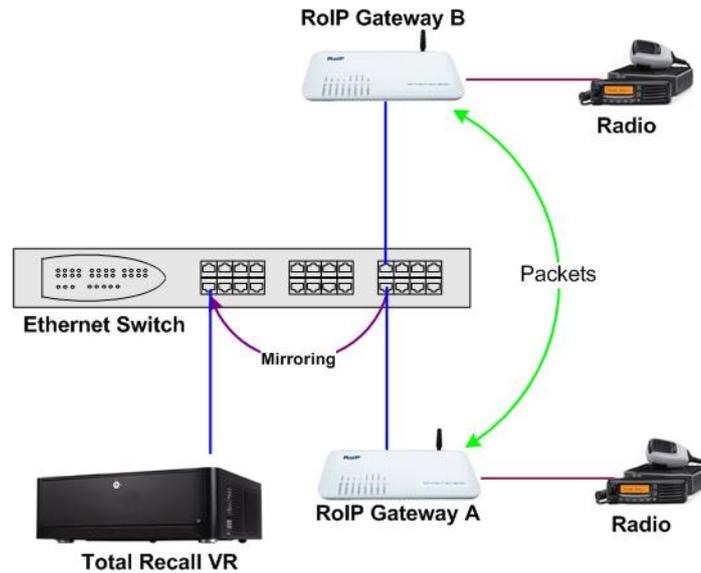


Figure 2: SPAN Port for RoIP Recording

In active mode Total Recall VR accepts RTP and Tait VRP packets on user configurable UDP ports, also known as UDP services. RoIP equipment can send RTP and VRP packets to the UDP services for the purpose of recording.

This interface receives RTP and VRP packets only. It does not send packets to the network.

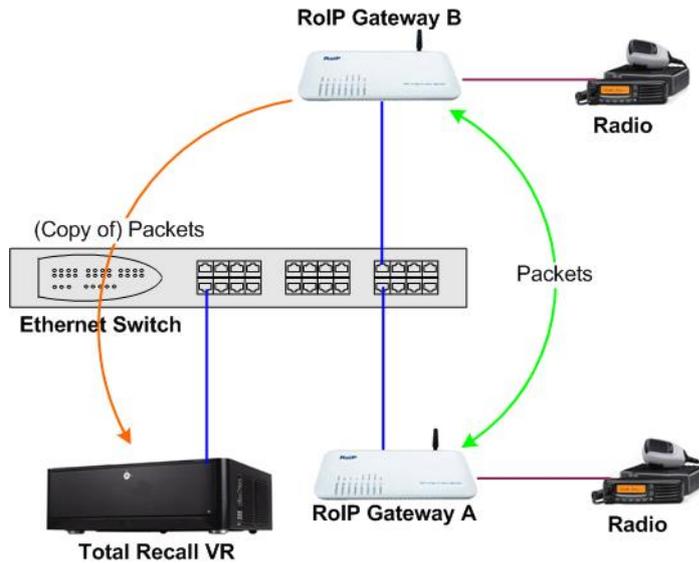


Figure 3: UDP Services for RoIP Recording

4.8. ISDN Networks

Total Recall VR uses a purpose built, high-impedance, ISDN PRI link (E1 or T1) tapping card to capture signalling and audio on ISDN PRI links. This interface does not interact with the calls and audio on the links in any way.

Total Recall VR may be equipped with one or two tap cards. You can connect only one ISDN PRI link to each tap card. As a result, the number of tap cards determines the number of ISDN PRI links that you can connect to Total Recall VR.



DO NOT connect ISDN BRI (2B +D) links to Total Recall VR. Total Recall VR can only record calls on ISDN PRI (E1/T1) links.

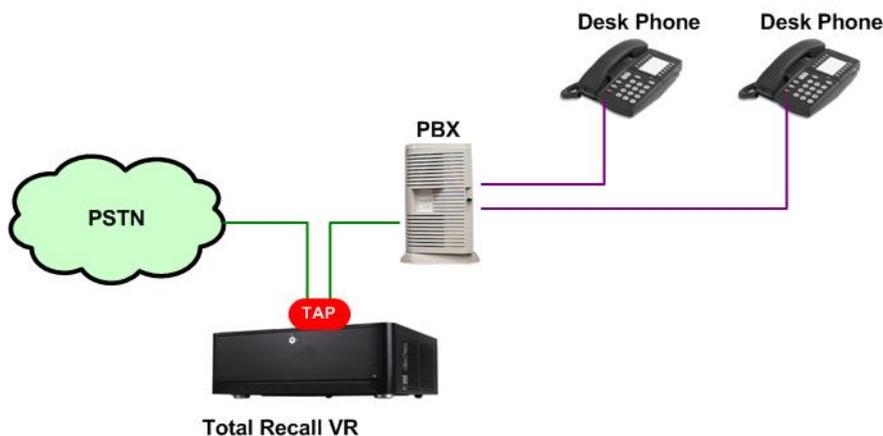


Figure 4: ISDN Call Recording on an ISDN PRI Link

Tapping cards use two RJ45 (8P8C) connectors to tap an ISDN PRI link. Pins 1, 2, 4 and 5 of each connector are connected directly to each other. This provides a pass-through connection for the ISDN link when connected to a tapping card. As a result, ISDN PRI links remain fully operational when connected to tap cards even when Total Recall VR is not powered.

The following figure shows the internal connections between the two RJ45 connectors on the tapping card. In addition it shows how to wire the connectors of the cables from the NTU and to the PBX that will connect to the RJ45 connectors on the tapping card.

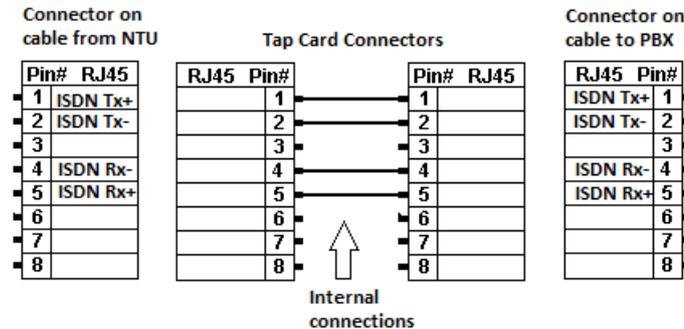


Figure 5: Tapping Card Connector Pin Allocation

To connect an ISDN PRI link to a tapping card on a Total Recall VR:

1. Connect the power cable to the Total Recall VR. This ensures that the earthing protection is in place during the rest of the procedure.
2. Disconnect the ISDN cable from the PBX by unplugging the cable from the port that it connects to on the PBX.
 - a. In most cases, and if the Tx pair is connected to pins 1 and 2 and the Rx pair is connected to pins 4 and 5, you can simply connect this cable to a RJ45 connector on the tapping card.
 - b. If the Tx pair is NOT connected to pins 1 and 2 and/or the Rx pair is NOT connected to pins 4 and 5, you must create a custom cable and connect that cable between the NTU and the tapping card.
3. Again, in most cases, and if the Tx pair is connected to pins 1 and 2 and the Rx pair is connected to pins 4 and 5, you can use a straight-through LAN cable, to connect the other RJ45 connector on the same tapping card to the ISDN port of the PBX.
 - a. However, if the ISDN port on the PBX uses different pins for the Tx and Rx pair, then you must create a custom cable and connect that cable between the tapping card and the PBX.



Figure 6: ISDN Link Connection

4.9. USB Key

Your Total Recall VR is equipped with a number of USB 2.0 and 3.0 ports. You can connect a USB key to any of the ports and use it to archive recordings.



Total Recall VR can archive to one USB key or disk drive at a time.

If you connect multiple USB keys/disk drives, then Total Recall VR will write archives to the key/drive that you connected LAST.

To write archives to a specific key/drive, first disconnect all USB keys/drives and then connect the one that Total Recall VR should write to.

4.10. Remote Manager

The Total Recall VR Remote Manager [4] is the only method of access to your Total Recall VR.

Install Remote Manager on a PC by following the instructions in the Remote Manager User Guide [4]. Then, to gain access to your Total Recall VR for the first time with Remote Manager:

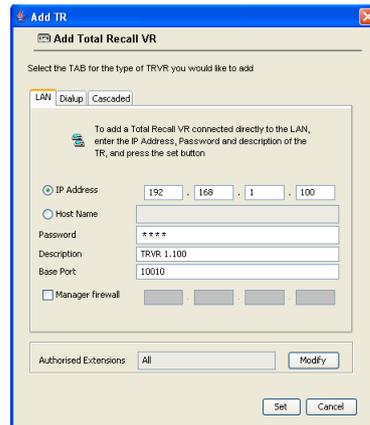
Connecting with Remote Manager for the first time

1. Connect the PC that runs Remote Manager and the Total Recall VR system with a cross-over network cable. Use LAN 1 on the Total Recall VR system.
2. Configure the LAN port on the PC with the following IP address: 192.168.1.99 and the following netmask: 255.255.255.0.
3. Test the connectivity between the PC and the Total Recall VR machine by running the following command on a DOS prompt:

```
ping 192.168.1.100
```

You should see “ping” response from the Total Recall VR system.

4. Start Remote Manager and configure a new TRVR connection as shown on the following dialog:



The *Password* is 0000.

5. Select **Set** to establish a connection to the Total Recall VR system.

Once you establish a connection with your Total Recall VR you can use Remote Manager to configure and control the Total Recall VR.

5. Configuration

5.1. Default Configuration

Every Total Recall VR leaves the factory with a default configuration which enables it to start recording the minute it is powered up.

In summary the default configuration is:

- The ID of the Total Recall VR is set to 1. If you have multiple Total Recall VRs we recommend that you assign a different ID to every Total Recall VR.
- The time zone is set to Australian Eastern Standard Time. The time and date are set to the current time and date in Sydney, Australia. We recommend that you change the time zone before starting to record.
- The default passwords for the administrator and the standard user are set to '0000'. We recommend that you change both to improve the security of Total Recall VR.
- The LAN 1 interface has an IP address of 192.168.1.100/24.
- The LAN 2 interface has an IP address of 192.168.2.100/24.
- The Remote Manager Interface accepts connections from client applications on IP address 192.168.1.100 and TCP port 10010.
- All recordings will be kept when recorded irrespective of their duration.
- Recordings will not be deleted based on their age, but will be deleted when the occupancy of the disks reaches 95% or more, or the number of recordings in reaches 900,000 or more.
- All SIP calls that are detected on the network that is connected to the LAN 2 interface will be recorded and kept.
- All calls that are detected on ISDN PRI E1 links that are connected to Total Recall VR will be recorded and kept.
- Automatic archiving of recordings is not enabled.

The following list is a summary of the default factory configuration.

General Settings

Language	English
Time & Date	
Use NTP	No
NTP Address 1	0.0.0.0
NTP Address 2	0.0.0.0

Date	Current date in Sydney, Australia
Time	Current time in Sydney, Australia
Time Zone Area	Australia
Time Zone City	Sydney
User Session	
Enable Timeout	Yes
Idle Timeout	2 minutes
Recent Calls	
Update Period	10 seconds
Records to Show	50
User Password	0000
Administrator Password	0000

Call Settings

Disable Compression	No
Min. Call Length	Ignore
Max. Call Length	60 minutes
Max. Call Lifetime	Ignore
VOX Timeout	15 seconds
Recording Period	Not set (always recording)

Network Settings

Default Gateway	Not set
Name Server (DNS)	Not set
Host Name	Not set
LAN 1	
IP Address	192.168.1.100
Netmask	255.255.255.0
VLAN ID	Not set
LAN 2	
IP Address	192.168.2.100
Netmask	255.255.255.0
VLAN ID	Not set

Extension Settings

Enable Monitoring	Yes
Recording Mode	Record by Default
Enable Phone Keys	No
Start Recording Phone Key	*11
Stop Recording Phone Key	*22

License Settings

The parameters in this group are pre-configured with valid licenses.

Analog Settings

The analogue configuration does not apply to your system.

ISDN Settings

Line Interface	E1
Line Frame	CRC4
Line Code	HDB3
Protocol	EuroISDN E1
D Channel	16
B Channels	30
Dial Plan	National
Local Dial Plan	National
Country Code	Australia

VoIP Settings

Packet Collector

Connection Type	Local
Connector	LAN 2
Port	10020
IP Address	192.168.2.100

VoIP Calls

Signalling Type	SIP
Trace Signalling	No
RTP Endpoints	None specified
RTP Streams	None specified
RTP Stream Pairs	None specified

Tait VRP

Enable	No
IP Address	192.168.2.100
UDP Port	9999
VOX Timeout	15 seconds
Address Type	MPT 1327
Fleets	None specified

SIP Media Server

Enable	No
SIP IP Address	192.168.1.100
SIP UDP Port	5060
RTP IP Address	192.168.1.100
RTP Base Port	7000

Archive Settings

Reminder	No
Auto Archive Every	No
Archive Device	Disc

Maintenance**System Information**

Recorder ID	1
-------------	---

Remote Manager

Use Dial-up	No
IP Address	192.168.1.100
Base Port	10010
Hostname	Not set
Maximum Sessions	5
Session Duration	2 hours

5.2. Pre-Recording Configuration

Your Total Recall VR will operate with its default configuration.



However, we strongly recommend that at minimum you change the following configuration in order to customise Total Recall VR to your business environment BEFORE you start recording.

General Settings

Time & Date

Date	Set it to your current date
Time	Set it to your current time
Time Zone Area	Set it to your time zone area
Time Zone City	Set it to your city
User Password	Change the password to improve security
Administrator Password	Change the password to improve security

Network Settings

Default Gateway	Set it to the IP address of your gateway
Name Server (DNS)	Set it to the IP address of your DNS
LAN 1	
IP Address	Set it to an IP address for your network
Netmask	Set it to the netmask for your network
VLAN ID	Set it to the VLAN ID for your network
LAN 2	
IP Address	0.0.0.0
Netmask	0.0.0.0
VLAN ID	Not set

ISDN Settings

Line Interface	Set to the same setting on your PBX for the link
Line Frame	Set to the same setting on your PBX for the link
Line Code	Set to the same setting on your PBX for the link
Protocol	Set to the same setting on your PBX for the link
D Channel	Set to the same setting on your PBX for the link
B Channels	Set to the same setting on your PBX for the link
Dial Plan	Set to the same setting on your PBX for the link

Local Dial Plan Set to the same setting on your PBX for the link

Country Code Set to the same setting on your PBX for the link

VoIP Settings

VoIP Calls

Signalling Type Set to SIP or H.323

RTP Endpoints If required, specify RTP end-points

RTP Streams If required, specify RTP streams

RTP Stream Pairs If required, specify RTP stream pairs

Tait VRP If required, enable it and specify correct settings

SIP Media Server If required enable it and specify correct settings

Maintenance

System Information

Recorder ID Set it to a unique ID if you have multiple recorders

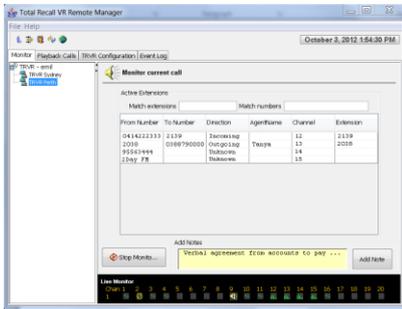


We recommend that you restart Total Recall VR after completing the pre-recording configuration.

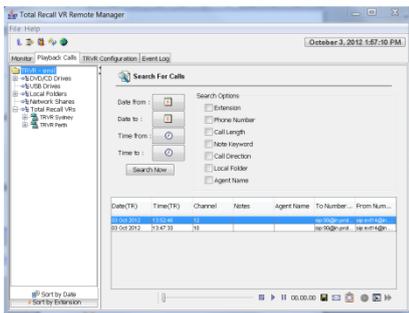
6. Basic Operation

To access Total Recall VR use the Remote Manager application. The Total Recall VR Remote Manager User Guide [4] explains the Remote Manager application in great detail. This section contains a summary.

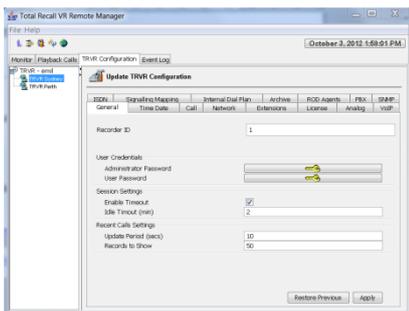
Remote Manager is a tabbed application which has 4 main tabs: Monitoring, Playback, Configuration and Event Log.



The Monitoring tab allows you to see recordings in progress, and optionally monitor (listen-in) and add notes to recordings in progress.

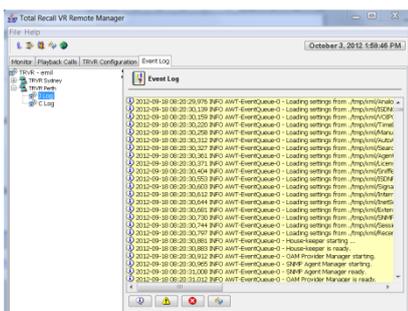


The Playback tab allows you to locate and re-play recordings that have completed. The recordings can be stored on the Total Recall VR or in one of the many different types of archives.



The Configuration tab makes provisions for managing the configuration of your Total Recall VR.

Exercise caution when using the facilities provided by this tab. As a safety precaution, do not allow access to this tab to users that do not need to have access to the configuration of Total Recall VR.



The Event Log tab makes provisions for viewing the logs of your Total Recall VR.

Personal and confidential information may appear in the logs; for example, credit cards numbers that callers enter during calls that are being recorded. As a safety precaution, do not allow access to this tab to users that do not need to have access to the logs of Total Recall VR.

6.1. Recording

You do not need to interact with Total Recall VR in any way to log audio and record calls. Total Recall VR automatically records as instructed by its configuration.

Recordings that are in progress, and while in progress, are shown on the Monitoring tab.

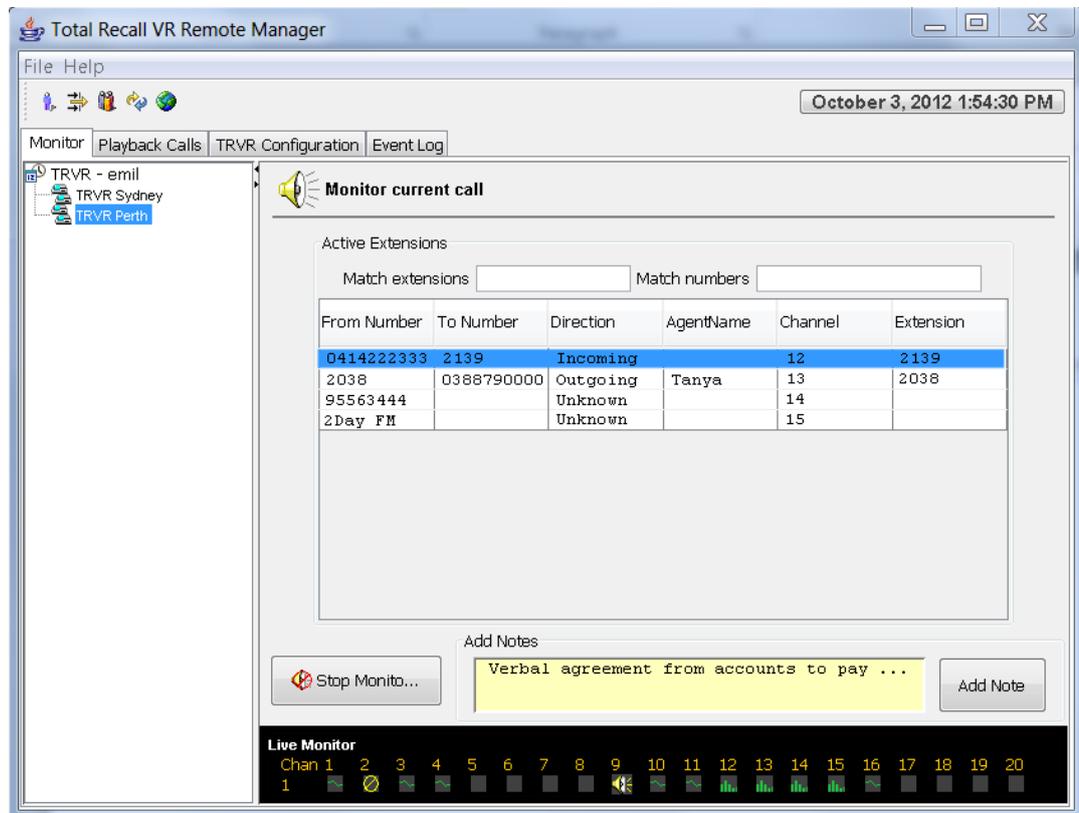


Figure 7: Monitor Tab with Recordings in Progress

6.2. Monitoring

Use the Monitoring tab in Remote Manager to monitor recordings in progress.

This tab depends on a streaming audio player to play audio while monitoring recordings. The streaming player uses the audio system of the PC and will output sound to the speakers or headphones connected to the audio system. It does not use the mono PC speaker, if installed.

To monitor recordings in progress, in real time, first navigate to the Monitoring tab. Then, to listen to the audio as it is being recorded simply select (single click) a recording in progress.

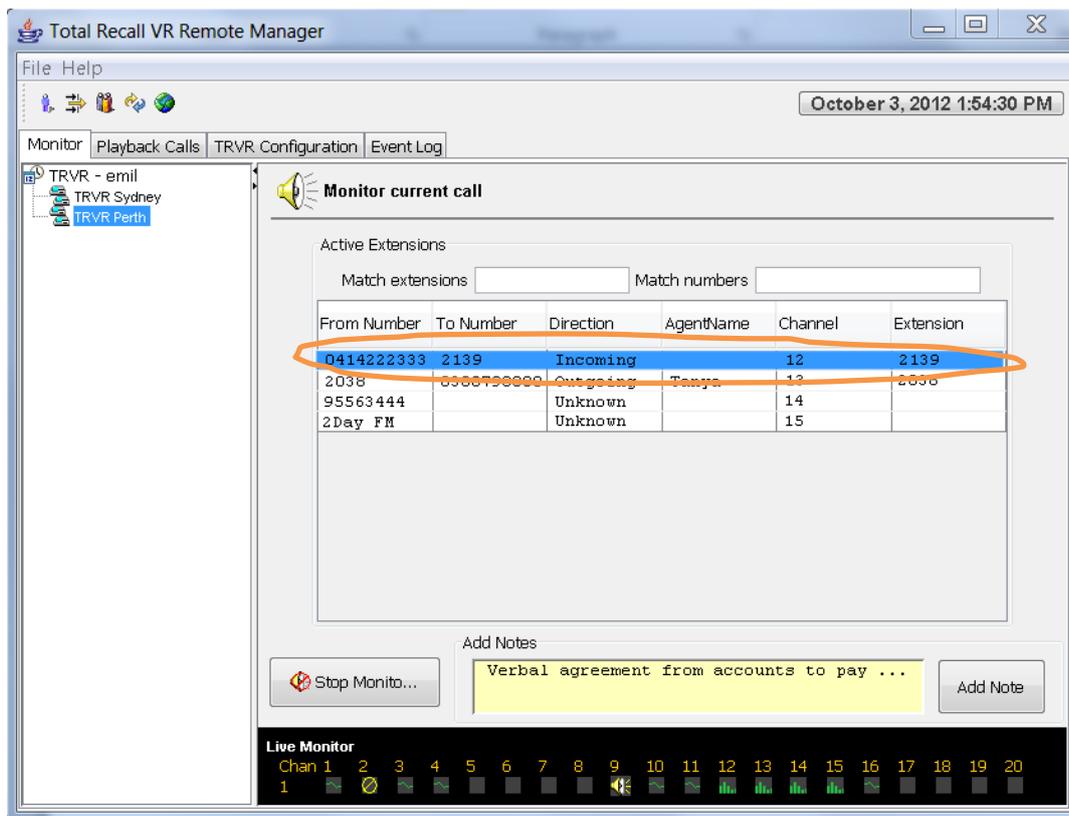


Figure 8: Monitoring Tab with Monitoring in Progress

Total Recall VR remembers the channel number of the recording channel when you start monitoring, but not stop it while recording is in progress. And if a new recording starts on the same channel, Total Recall VR automatically start monitoring the new recording.

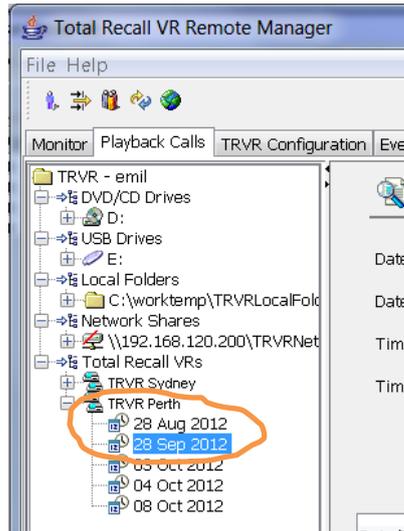
6.3. Searching

Remote Manager makes provisions for searching for recordings that reside on Total Recall VR systems and recordings that are stored in archives which are located on CD, DVD or BD discs, USB keys or disk drives, network drives and local folders.

To locate recordings that have completed, first navigate to the Playback tab. Then to find recordings:

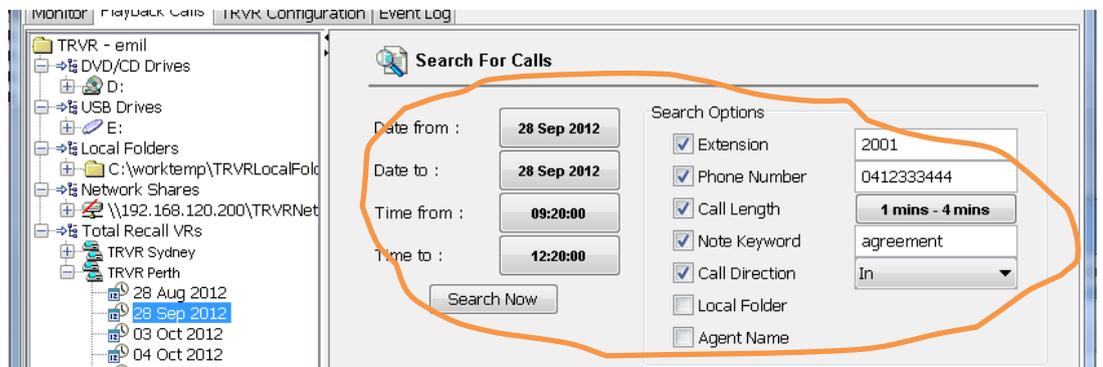
Search for Recordings

1. Select an archive or a Total Recall VR:



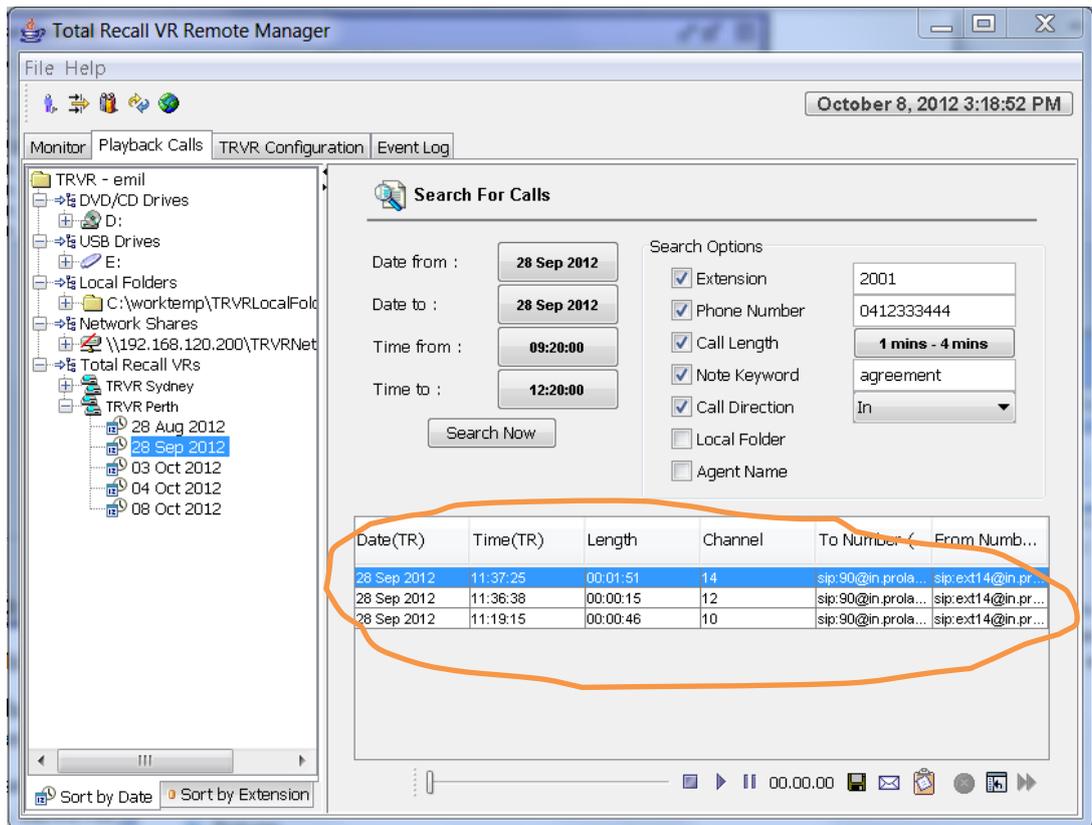
You can select a date or extension item as well under the archive or Total Recall VR. This automatically populates the date or extension search criterion.

2. Tick and enter values for search parameters, in any combination, to include parameters in the criterion that will be used for the search. Only recordings that match the criterion will be selected by the search.



If you do not include any of the parameters in the criterion, then the criterion will match all recordings.

3. Select **Search Now**. The search will identify all recordings that match the search criterion and display them. For example:



The table will be empty if no recordings match the search criterion.

Note that the recordings are displayed sorted in reverse order of start time, i.e. latest recording on top.

6.4. Playing

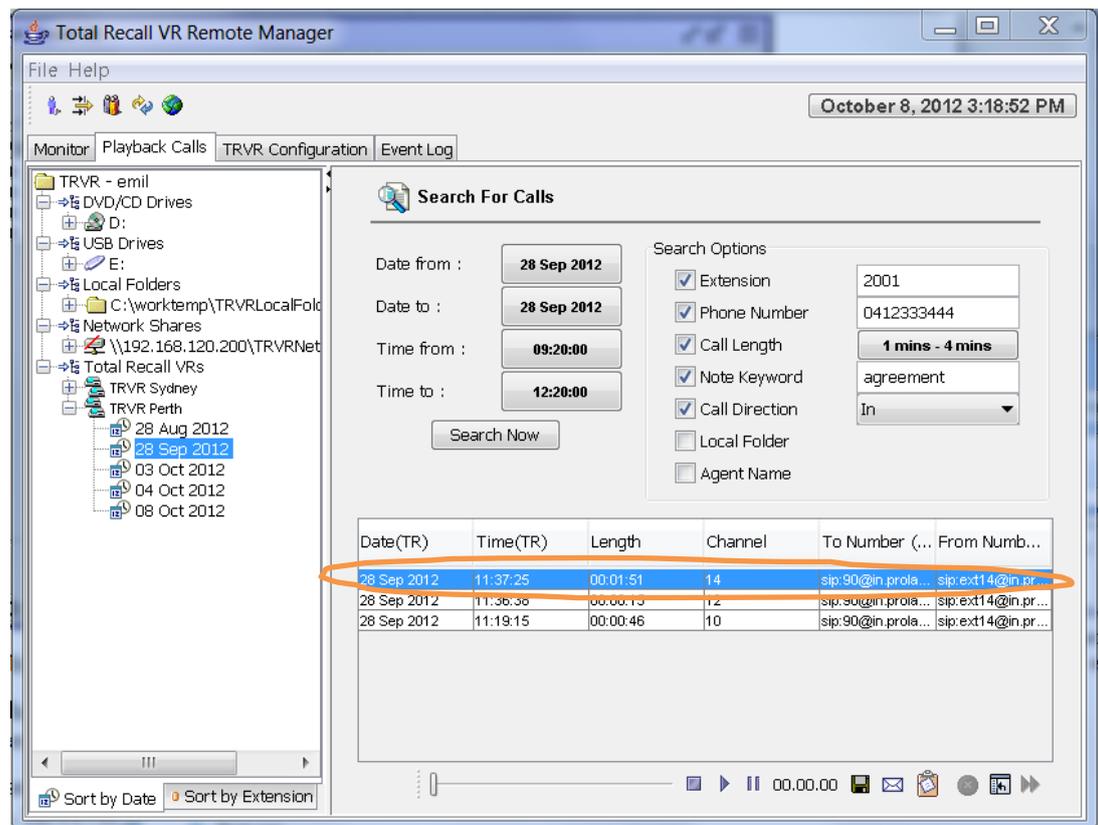
Remote Manager makes provisions for playing recordings that reside on Total Recall VR systems and recordings that are stored in archives which are located on CD, DVD or BD discs, USB keys or disk drives, network drives and local folders.

Remote Manager uses the audio system of the PC that it runs on to play the audio of the recordings. You must have speakers attached to the audio system as Remote Manager does not use the built-in PC speaker, if present.

To play a recording that has completed, first navigate to the Playback tab and then search for it. Once you have located the recording:

Playing a Recording

1. Select the recording that you wish to listen to:



2. Select  to start playing. Audio will be heard from the speakers that are attached to the PC and the actual time of recording will be shown as playing progresses right next to the  button.
3. While playing is in progress you can use  to pause playing.
4. Select  to stop playing.

Note that if you navigate away from the Playback tab while play is in progress, then Remote Manager will automatically stop the play. You must remain on the Playback tab in order to play recordings.

6.5. Archiving

Remote Manager can trigger on-demand archiving on Total Recall VR.



If you plan to archive remotely, then make sure to load a DVD or BD disc in the drive; or, attach a USB key or disk drive to Total Recall VR.

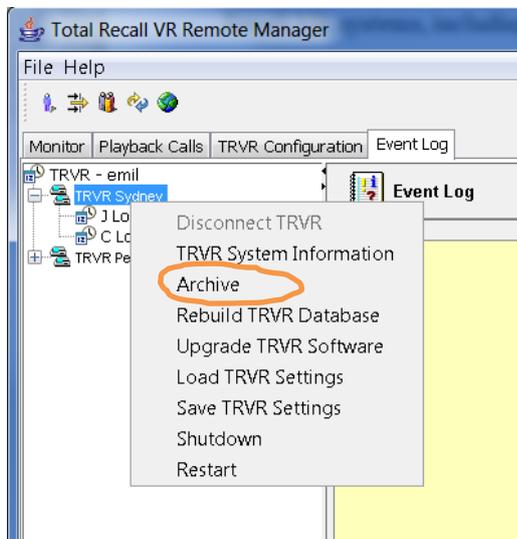
DO NOT use CD discs to archive while the front panel cover is closed.



Total Recall VR needs to open and close the disc tray while archiving to CD media which will not be possible if the front panel cover is closed.

We recommend you only use DVD and DB discs to archive. Total Recall VR does not need to open and close the disc tray when archiving to DVD and BD discs.

Use the **Archive** option on the Context menu to start on-demand archive sessions on your Total Recall VR from Remote Manager:



7. Preventative Maintenance

Total Recall VR requires minimal preventive maintenance to ensure maximum performance.

7.1. Hard Disks

The hard disks are the hardest working component in Total Recall VR. Information is constantly written to and read from the disks.

The average life expectancy of the hard disks is 5 years. However, as with any electronic and mechanical technology, the disks in your system may last much longer or much less.

We recommend that you replace the disks in your system every 4 years or so. You can purchase suitable disks from us or your local Total Recall VR supplier.

7.2. Disk Space

Total Recall VR manages disk space automatically.

Total Recall VR has an in-built auto cleaning function which ensures that it has enough free disk space in it to continue recording endlessly.



A working archiving strategy must be implemented to avoid losing recordings as a result of auto-cleaning.

In general, the auto-cleaning function automatically deletes recordings when the number of recordings reaches more than 900,000, or the disk occupancy reaches 95% whichever occurs first. It removes oldest first recordings until the number of recordings reduces to 700,000 or less and the disk occupancy is below 88%.

7.3. Orderly Shutdown

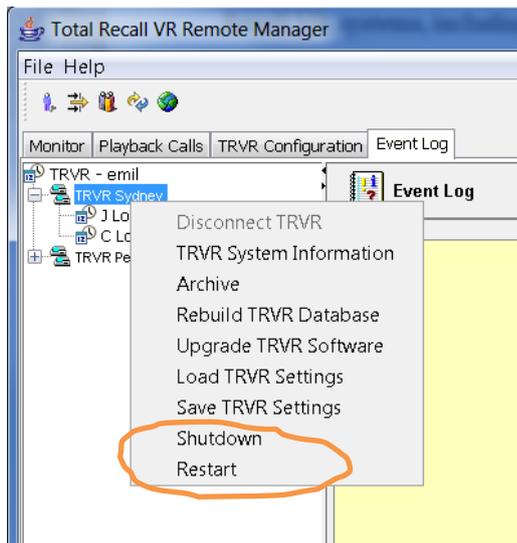
Total Recall VR must be powered down in an orderly fashion to prevent damage to its electronic components and in particular its hard disks.



DO NOT turn power off Total Recall VR while it is recording. This will result in damage of its hard disks which may result in total information loss.

In addition it may cause damage to other electronic components.

To shut down, or restart, Total Recall VR in an orderly fashion use the **Shutdown**, or the **Restart**, option from the Context menu.



The system will stop all recording, then stop all applications and then stop its operating system thus avoiding any system damage or damage to recording files.

8. Troubleshooting

8.1. Limited Product Warranty

For full details of the limited product warranty for this product please visit our web site: <http://www.totalrecallvr.com/warranty>.

8.2. Support Information

If after using this manual, and other Total Recall VR manuals, you still have questions about the operation of Total Recall VR, or you are experiencing problems with your Total Recall VR, then:

1. Please visit the Resources section on our web site <http://www.totalrecallvr.com>
2. Contact technical support via e-mail: itsupport@prolancer.com.au

8.3. Forums

Our online forums, <http://www.totalrecallvr.com/forum>, contain answers to common problems that you may experience when installing and using Total Recall VR.

[End of Document]