

# The Remote Desktop Connection Handbook

Brad Hards



# The Remote Desktop Connection Handbook

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### **Abstract**

Remote Desktop Connection is a client application that allows you to view or even control the desktop session on another machine that is running a compatible (VNC) server.

## Chapter 1

# Introduction

Remote Desktop Connection is a client application that allows you to view or even control the desktop session on another machine that is running a compatible (VNC) server.

You would typically use Remote Desktop Connection with the KDE VNC server, which is Desktop Sharing, since it closely matches the special features of Remote Desktop Connection.

Please report any problems or feature requests to the KDE mailing lists or file a bug at <http://www.bugs.kde.org>.

## Chapter 2

# The Remote Frame Buffer protocol

This chapter provides a brief description of the Remote Frame Buffer protocol used by Remote Desktop Connection and by other compatible systems. If you are already familiar with Remote Frame Buffer, you can safely skip this chapter.

The high level implementation of a system using the Remote Frame Buffer protocol is known as Virtual Network Computer, or more often just as VNC.

Remote Frame Buffer (or RFB for short) is a simple protocol for remote access to graphical user interfaces. It works at the frame-buffer level, which roughly corresponds to the rendered screen image, which means that it can be applied to all windowing systems (including X11, Mac® OS and Microsoft® Windows®). Remote Frame Buffer applications exist for many platforms, and can often be free re-distributed.

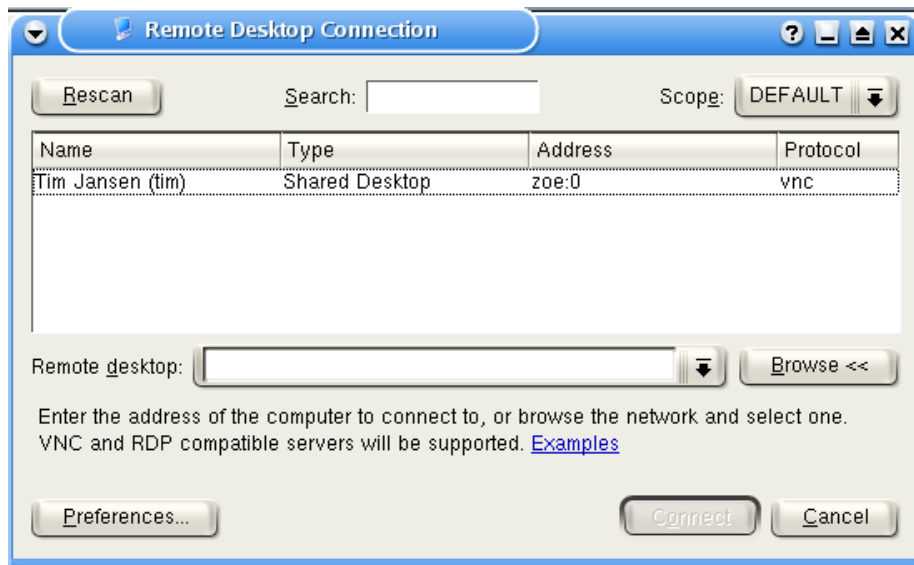
In the Remote Frame Buffer protocol, the application that runs on the machine where the user sits (containing the display, keyboard and pointer) is called the client. The application that runs on the machine where the framebuffer is located (which is running the windowing system and applications that the user is remotely controlling) is called the server. Remote Desktop Connection is the KDE client for the Remote Frame Buffer protocol. Desktop Sharing is the KDE server for the Remote Frame Buffer protocol.

It takes a reasonable amount of network traffic to send an image of the framebuffer, so Remote Frame Buffer works best over high bandwidth links, such as a local area network. It is still possible to use Remote Desktop Connection over other links, but performance is unlikely to be as good.

## Chapter 3

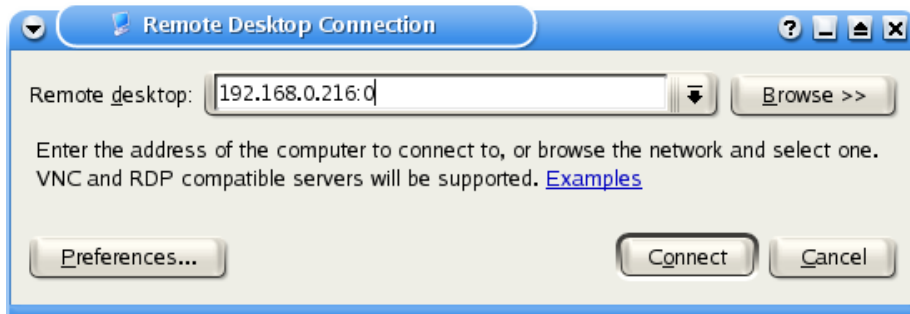
# Using Remote Desktop Connection

It is very easy to use Remote Desktop Connection - it has a simple interface, as shown in the screenshot below.



If you click on the Browse << button, you will get an even simpler interface, as shown below.

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If you click on the Browse » button, you will get the normal interface back.

### 3.1 Connecting Remote Desktop Connection to compatible servers

Remote Desktop Connection is a client, and it needs to be used with compatible servers. There are three ways to connect to those servers:

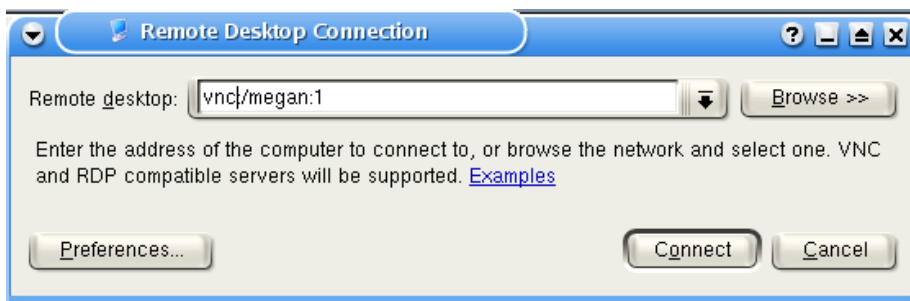
- Directly typing the server name (or IP address) into the Remote desktop: combo box.
- By using an invitation that you received. Desktop Sharing uses invitations, and can send them by email.
- By using Service Location Protocol browsing.

Let's look at each of these in turn.

#### 3.1.1 Server name entry

If you know the host name (or IP address) of the server you want to connect to, you can enter it directly into the Remote desktop: combo box.

If you want to connect to a machine named *megan*, which is running a VNC server on screen 1, you can enter `megan:1` or alternatively as `vnc:/megan:1` into the Remote desktop: combo box.



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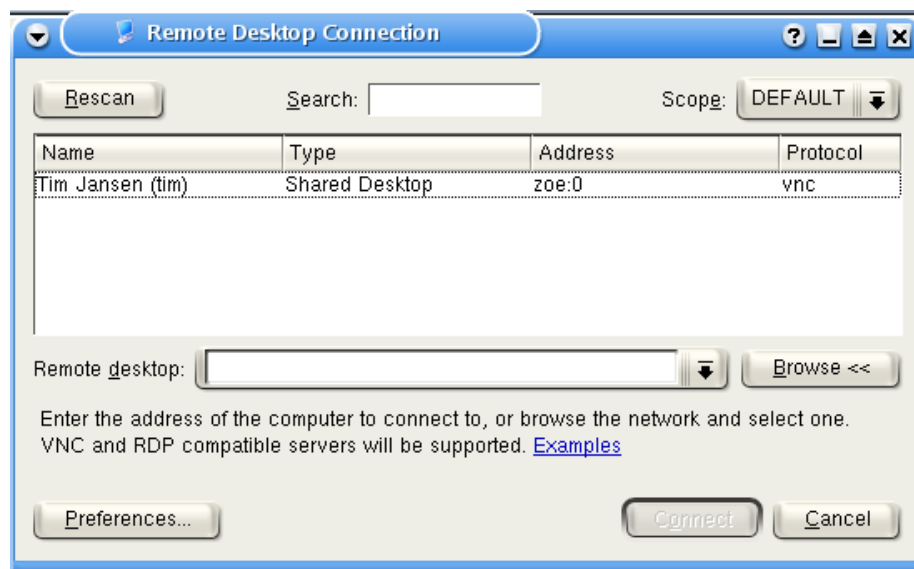
Similarly, if you are using a RFB server on that machine, you can enter `rfb:/megan`. RFB does not need the screen number to be specified.

### 3.1.2 Using an invitation

Within the Desktop Sharing server application, it is possible to send invitations over email (and in other ways, although email is the most useful). If you receive this type of email invitation, you can just click on the link provided in the mail. This will start Remote Desktop Connection if it is not already running, and connect to the server specified in the invitation.

### 3.1.3 Using Service Location Protocol

The third way to use Remote Desktop Connection is to browse using Service Location Protocol. A list of compatible servers that are registered with the Service Location Protocol system is shown in a list in the center of the main window:



#### NOTE

If your main window doesn't contain the table, remember that you can use the Browse » to get back to the full Remote Desktop Connection window. Also, not all compatible servers support automatic registration - one that does is the Desktop Sharing server which is part of KDE.

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If you click once on an entry in the table, it will be selected, and you can use the Connect to establish a connection to the server. As a short-cut, you can just double-click on an entry, which will also establish a connection.

While Service Location Protocol will usually detect new servers becoming available, you can also force the Remote Desktop Connection to scan for new servers. This is done using the Rescan. When you ask for a scan, the button is disabled (greyed out) while the scan is being performed - this typically takes a few seconds.

When using Service Location Protocol, the concept of Scopes is important. If there are a lot of services being advertised, it can become unwieldy to scan through a list. A re-scan can also produce a lot of network traffic. To avoid this problem, administrator's can configure Service Location Protocol with a set of Scopes, and only register services in certain scopes. For example, a host may be registered in the "third\_floor" scope and the "logistics" scope, but not in the "engineering" scope or "maintenance" scope. In smaller setups, everything is only registered in the "DEFAULT" scope. Remote Desktop Connection supports selection of a scope other than "DEFAULT", using the Scope: drop-down box in the top right hand corner of the main window.

### 3.2 What happens when you connect

No matter how you select the server to connect to, the next thing that happens is that Remote Desktop Connection asks you about the network connection to the server, as shown below:



There are three speed settings:

- High Quality (LAN, direct connection), which is the default, and you should evaluate how well this setting performs before selecting a lower performance option that uses less bandwidth.
- Medium Quality (DSL, Cable, fast Internet).

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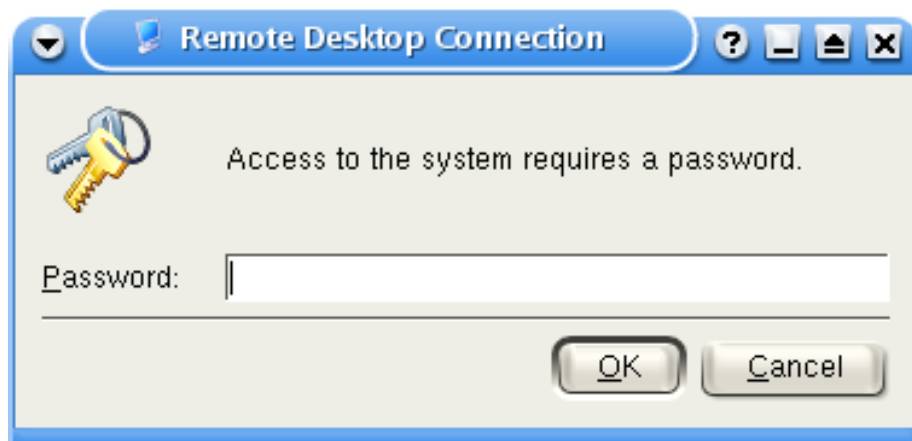
- Low Quality (Modem, ISDN, slow Internet).

If you always operate over the same link type, you can deselect the checkbox labelled Show this dialog again for this host, which means that you won't be asked about the connection type again for this host, providing you identify it in the same way. For example, if a host has two names, and deselect the checkbox when connecting using one name, you won't get asked if you connect using that name, although you will be asked if you use the other name, or the IP address.

You select the appropriate speed setting, and select the Connect to proceed.

You will then see a small window containing a progress bar, which fills in as Remote Desktop Connection negotiates the connection.

Depending on the configuration of the server, you may (and almost certainly will) need to provide a password to authenticate to the server. Remote Desktop Connection will provide a password dialog similar to that shown below.



After authentication, you will be connected to the remote server, and can begin using Remote Desktop Connection to observe or control the remote desktop.

### 3.3 Controlling the remote desktop connection

Having connected to the remote server, you would normally use the keyboard and mouse to control the windowing system and applications on that remote machine.

You can view the remote desktop either as a full screen, or as a window on the local desktop. You can change between these modes using icons shown below.

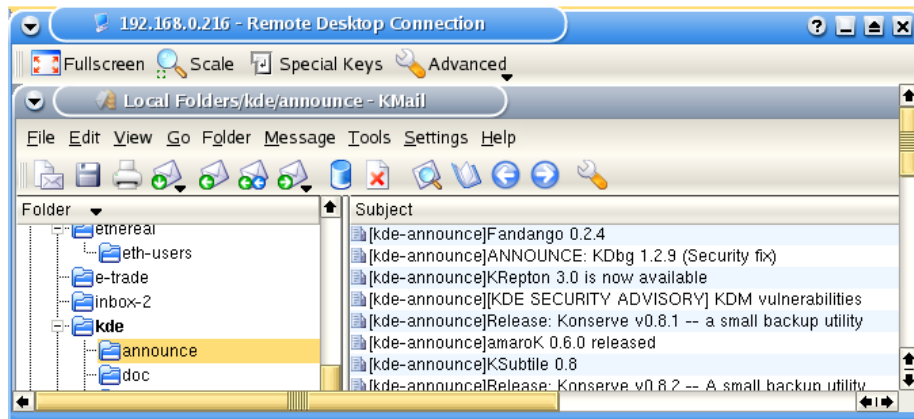




Full screen mode is normally better when you are helping a remote user, because you can see all of what they can see. Window mode is most useful when you are working both remotely and locally - perhaps referring to some local documentation and then using those instructions on the remote machine.

### 3.3.1 Using window mode

Remote Desktop Connection in window mode looks something like the screenshot below.



In window mode, you can terminate the connection by closing the window.

### 3.3.2 Using full screen mode

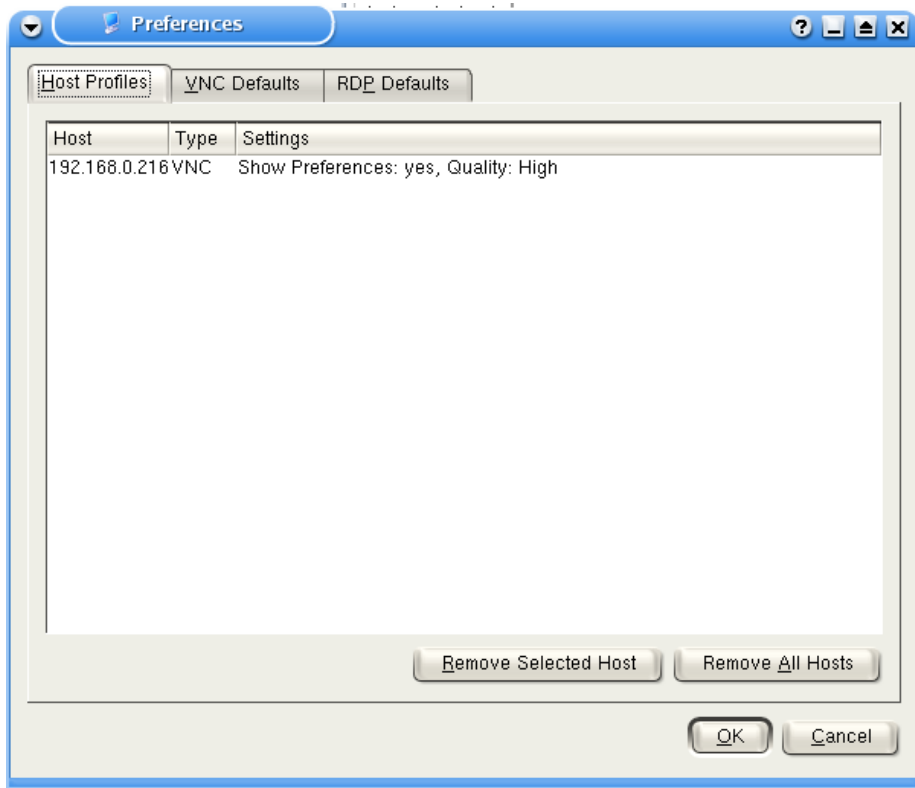
In full screen mode, you can terminate the connection by selecting the red "close" icon, which is shown below.



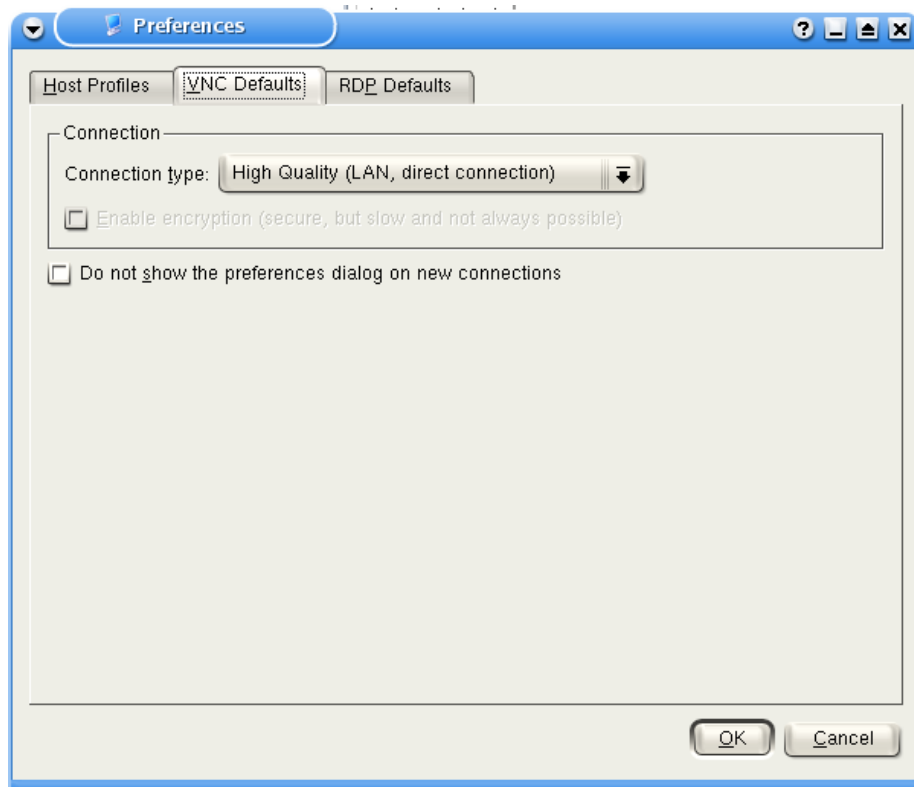
## 3.4 Managing Remote Desktop Connection configuration

Using the Preferences... button in the bottom left hand corner of the the Remote Desktop Connection main window, you can open a dialog to modify the behaviour of Remote Desktop Connection. Selecting that button brings up a window as shown below:

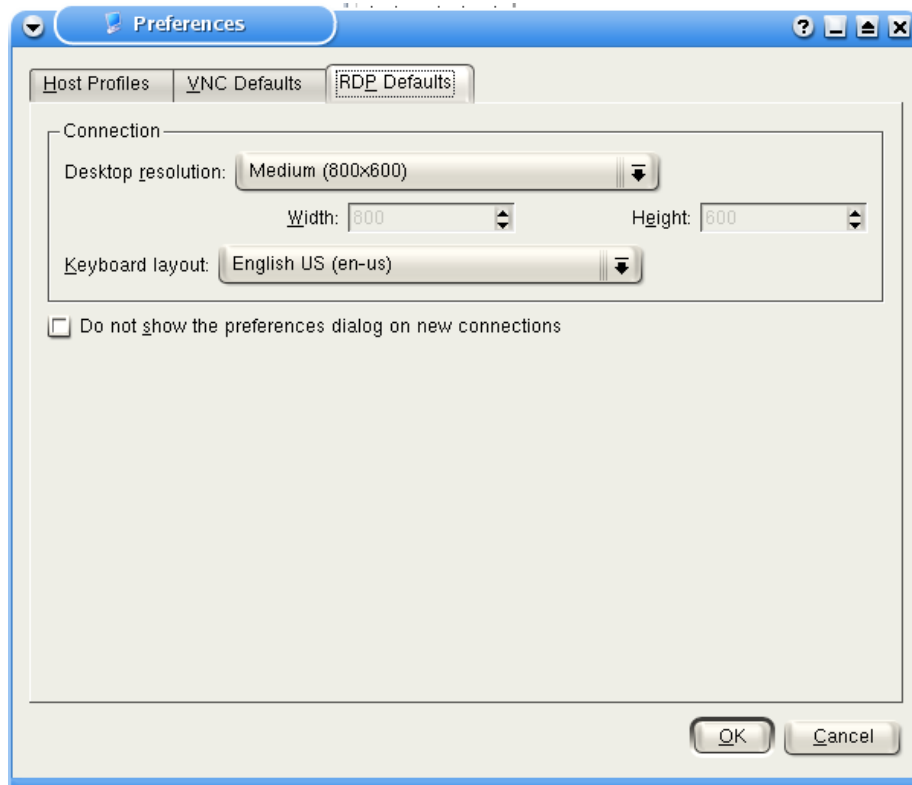
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## Chapter 4

# Developer's Guide to Remote Desktop Connection

Remote Desktop Connection supports a small number of DCOP commands, which are described in this chapter. If you aren't familiar with DCOP, then you don't need to worry about this. However if you'd like to automate some of your Remote Desktop Connection (or other KDE application) actions, DCOP is a useful tool. You can find out more about DCOP in its on-line documentation, and in tutorials on <http://developer.kde.org>.

You can shut down the Remote Desktop Connection application using the quit command, as shown in this example:

```
%dcop krdc-25550 MainApplication-Interface quit
```

### NOTE

You will need to change the `krdc-25550` in the example to match the instance of Remote Desktop Connection that you actually want to shutdown. If you run **dcop** with no options, you will get a list of all applications that are running and DCOP can control.

## Chapter 5

# Questions and Answers

This document may have been updated since your installation. You can find the latest version at <http://docs.kde.org/development/en/kdenetwork/> .

1. *When I start Remote Desktop Connection, I get a message box that reads `Browsing the network is not possible`. You probably did not install SLP support correctly. What is wrong?*

SLP is Service Location Protocol, and is typically provided by OpenSLP, or by The Knot. If you compiled Remote Desktop Connection yourself, this probably means that Remote Desktop Connection has been compiled against the SLP libraries, but the server (probably called **slpd** or **knotd**) isn't running. You normally need to start these servers as the superuser, which may mean requesting that your system administrator does this, if you can't do this yourself. If you are running a packaged version of Remote Desktop Connection, then you may have some missing dependencies. There are so many ways this can happen that you'd need to seek support from whoever did the packaging.

## Chapter 6

# Credits and License

Remote Desktop Connection

Program copyright 2002 Tim Jansen [tim@tjansen.de](mailto:tim@tjansen.de)

Contributors:

- Ian Reinhart Geiser [geiseri@kde.org](mailto:geiseri@kde.org)

Documentation Copyright (c) 2003 Brad Hards [bradh@frogmouth.net](mailto:bradh@frogmouth.net)

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## Appendix A

# Installation

### A.1 How to obtain Remote Desktop Connection

Remote Desktop Connection is part of the KDE project <http://www.kde.org/>

Remote Desktop Connection can be found in the kdenetwork package on <ftp://ftp.kde.org/pub/kde/>, the main FTP site of the KDE project.

### A.2 Compilation and Installation

In order to compile and install Remote Desktop Connection on your system, type the following in the base directory of the Remote Desktop Connection distribution:

```
% ./configure
% make
% make install
```

Since Remote Desktop Connection uses **autoconf** and **automake** you should have no trouble compiling it. Should you run into problems please report them to the KDE mailing lists.