

# The Remote Desktop Connection Handbook

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## 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 server. VNC and RDP is supported.

# 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 server.

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

If you want to start Remote Desktop Connection from Konsole, the command is **krdc**.

Please report any problems or feature requests to the KDE mailing lists or file a bug at <https://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<sup>®</sup> OS and Microsoft<sup>®</sup> Windows<sup>®</sup>). Remote Frame Buffer applications exist for many platforms, and can often be free re-distributed.

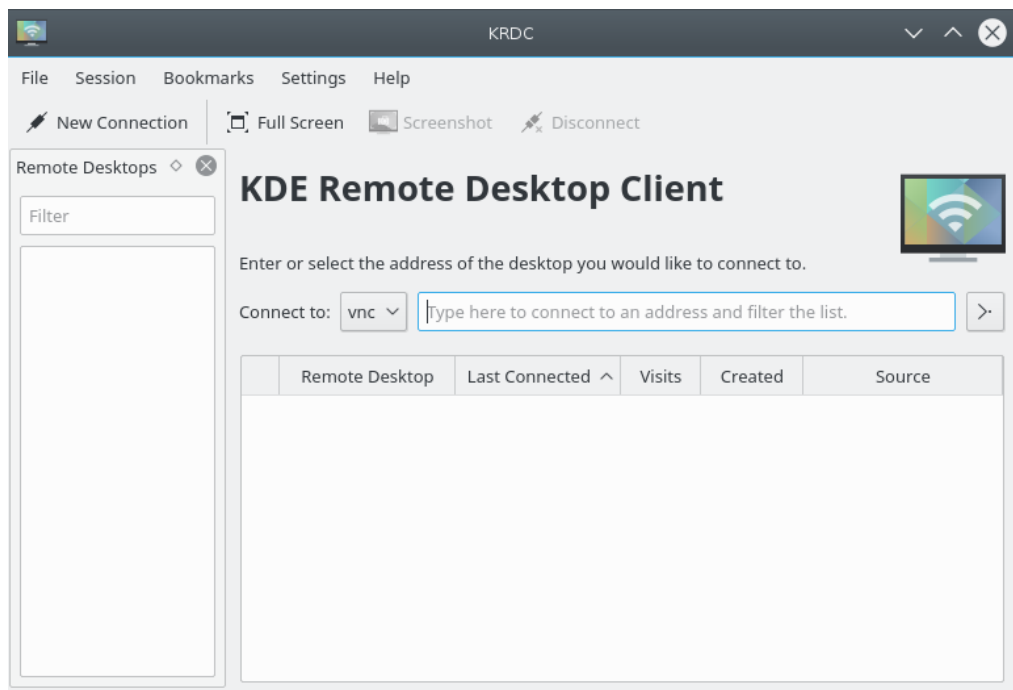
In the Remote Frame Buffer protocol, the application that runs on the machine where the user sits (containing the display, keyboard and pointer) is called the client. The application that runs on the machine where the framebuffer is located (which is running the windowing system and applications that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



### 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 different ways to connect to those servers:

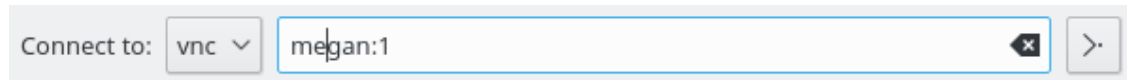
- Directly typing the server name (or IP address) into the **Connect to:** input.
- By using an invitation that you received. Desktop Sharing uses invitations, and can send them by email.

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 **Connect to:** input.

If you want to connect to a machine named **megan**, which is running a VNC server on screen 1 (5901), you can enter **megan : 1** or **megan : 5901** and choose **vnc** as the protocol in the drop down box.



Similarly, if you are using a RDP server on that machine, you can enter **megan**. Choose **rdp** as the protocol. RDP does not need the screen number to be specified. If the server runs the RDP server not on the default port, you may specify it in the following way: **megan : 3910**

You need to enter an URL in percent encoded syntax, i.e. @ as %40, for e.g. **username%40ad.domain.example**

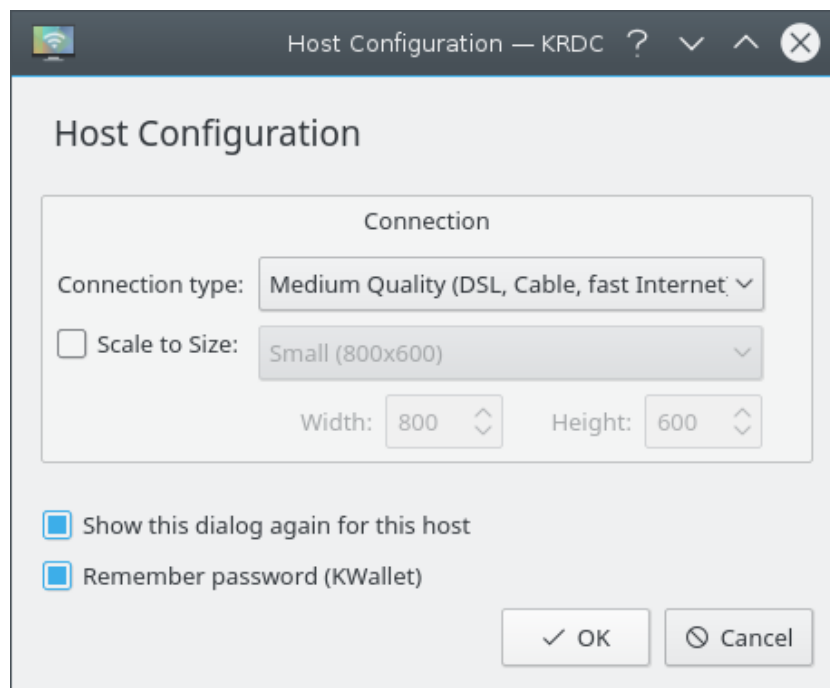
### 3.1.2 Using an invitation

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.

## 3.2 What happens when you connect

Notice: Before connecting, ensure that the target computer (server) is available on the network and, if necessary, that its firewall has been correctly configured or disabled.

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 for the VNC protocol:

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

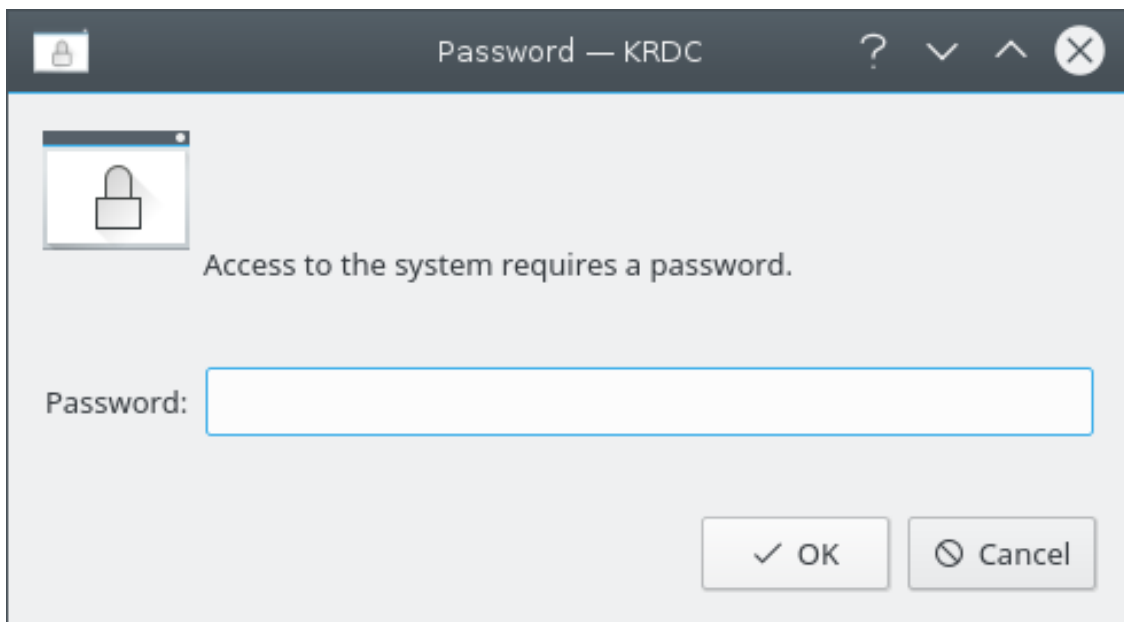
If you always operate over the same link type, you can deselect the checkbox labeled **Show this dialog again for this host**, which means that you won't be asked about the connection type again for this host, providing you identify it in the same way. For example, if a host has two names, and deselect 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 **OK** to proceed.

You can see the connection status in the icon in the tab.

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.

Remote Desktop Connection has the ability to save the password for further connections to the same host. It uses KWallet for doing this. You need to check the **Remember password (KWallet)** check box if you like to use this feature.



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

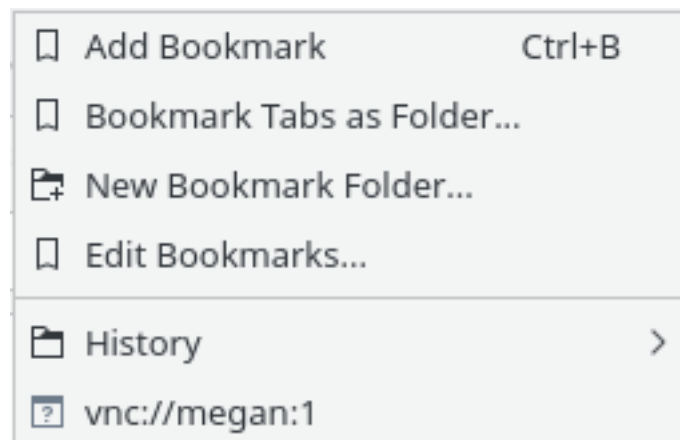
In window mode, you can terminate the connection by closing the window, by clicking on the logout button.

### 3.3.2 Using full screen mode

In full screen mode, you can change the appearance of the toolbar. The transparency of the toolbar can be changed with scrollwheel.

## 3.4 Bookmarks

Remote Desktop Connection has the ability to manage bookmarks. If you need to connect often to the same remote desktop, you can add an entry for this connection to the bookmark list. You can do so with a click on **Bookmarks** → **Add Bookmark**.



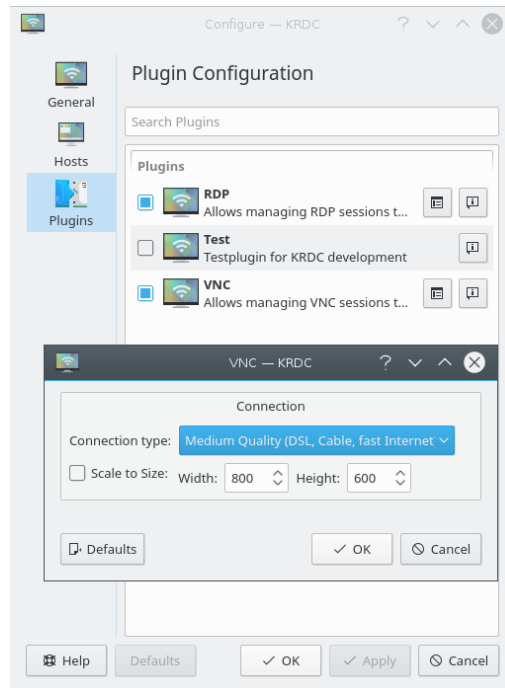
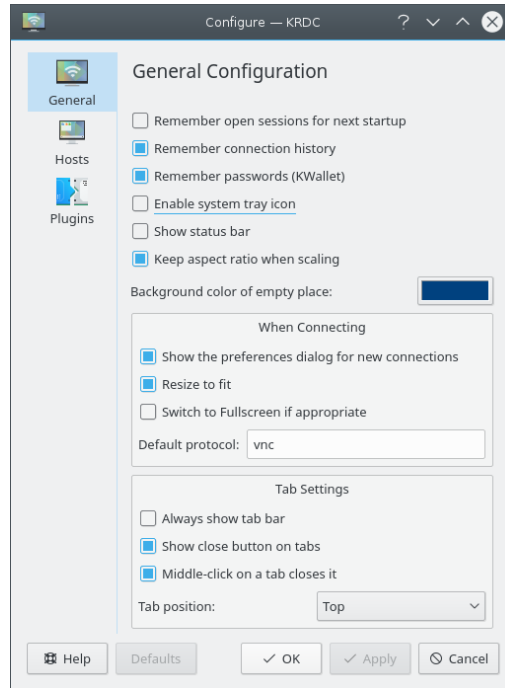
### 3.4.1 History Bookmarks

Remote Desktop Connection saves last used remote desktop connections. You can access these special bookmarks at **Bookmarks** → **History**. Of course you can also delete a bookmark of this list if you don't need it anymore in the list. Just click **Delete Bookmark** which appears after a click with the right mouse button on the bookmark you would like to delete.

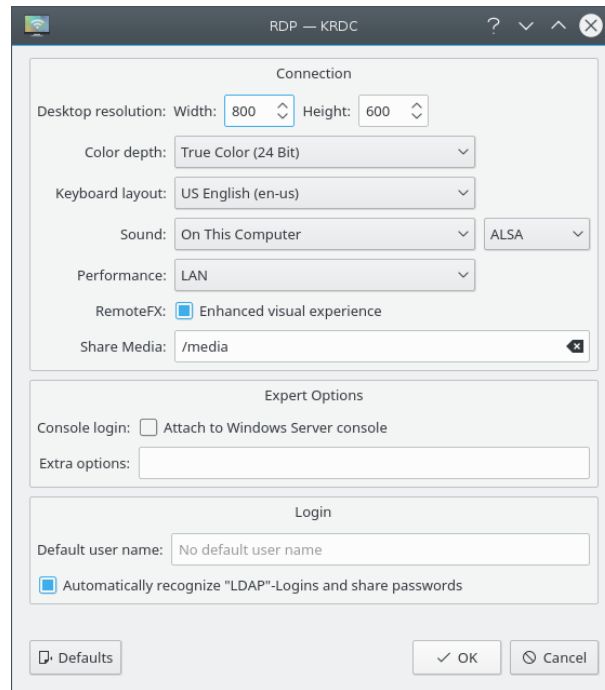
## 3.5 Managing Remote Desktop Connection configuration

Using **Settings** → **Configure KRDC...**, you can open a dialog to modify the behavior of Remote Desktop Connection. Selecting that button brings up a window as shown below:

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## Chapter 4

# Questions and Answers

1. *Why does RDP support not work?*

RDP support in Remote Desktop Connection depends on xfreerdp (FreeRDP). Make sure that you have installed this runtime dependency.

## Chapter 5

# Credits and License

### Remote Desktop Connection

The Remote Desktop Connection project has been started by Tim Jansen [tim@tjansen.de](mailto:tim@tjansen.de). As a Google Summer of Code 2007 project, Urs Wolfer [uwolfer@kde.org](mailto:uwolfer@kde.org) has completely rewritten Remote Desktop Connection. Thanks to Google for making this possible, and thanks to the great mentor of this Summer of Code project, Brad Hards [bradh@frogmouth.net](mailto:bradh@frogmouth.net).

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