

MANUAL

VisuNet RM Shell 4.0 - DRDC License



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1 VisuNet RM Shell - Emerson DeltaV Remote Desktop Connection (DRDC) Client Option

VisuNet Remote Monitors (RM) are industrial-grade thin client workstations that allow you to connect to your process control system. With the integrated Emerson DRDC client, the RM Shell 4.0 enables you to directly connect to virtualized Emerson DeltaV 12 (and above) DCS systems (see figure 1). With the integrated DRDC client, there is no need to use an additional thin client in the safe area (e.g., control room) to connect to the DCS.



Note!

The DRDC client is only required for connecting to a virtualized operator or engineering workstation within the DeltaV virtualization architecture. If you use a conventional, non-virtualized architecture, you can use the Microsoft RDP client for connecting to a DeltaV operator or engineering workstation.

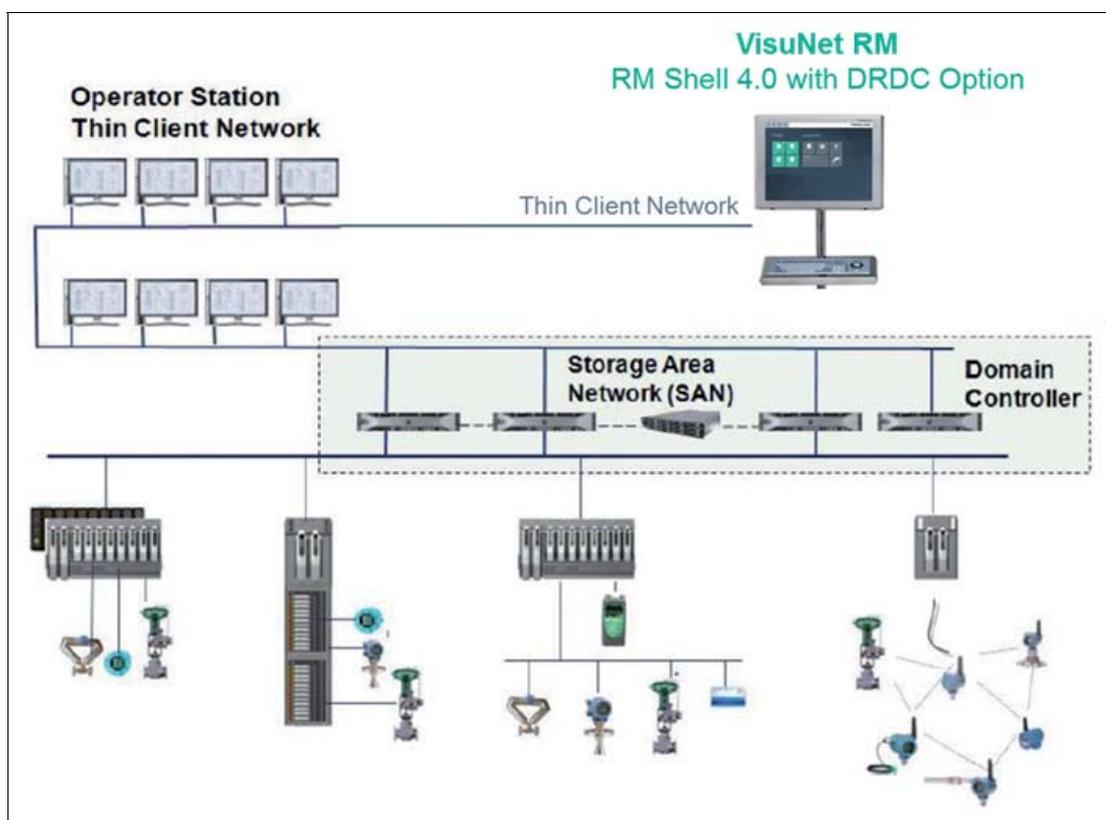


Figure 1.1 VisuNet RM with Emerson DeltaV Remote Desktop Client (DRDC) option

How to set up the VisuNet RM Shell to use the Emerson DeltaV Remote Desktop Connection (DRDC)

1. Activate the DRDC license key, see chapter 3.1
2. Configure the DRDC settings
 - Network Redundancy, see chapter 3.2.1
 - NTP Service, see chapter 3.2.2
3. Create an Emerson DRDC profile, see chapter 4

2 VisuNet RM Shell 4.0 User Interface

Home Screen

The home screen is divided in 3 sections:

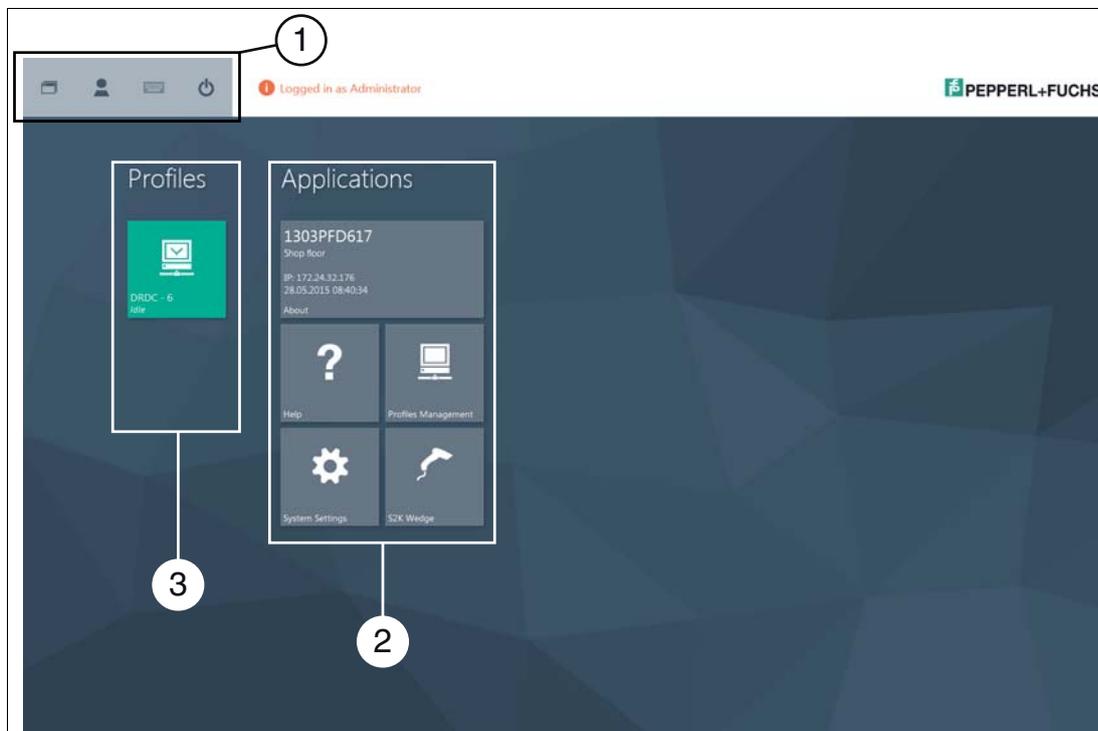


Figure 2.1 VisuNet RM Shell home screen

1	System functions
2	Applications
3	Profiles

System Functions

Icon	Description
	Switch between local running programs and profiles.
	Switch user role Choose between Operator, Engineer, or Administrator.
	Touchscreen keyboard Shows the touchscreen keyboard on the screen.
	Preconfigured power options such as: <ul style="list-style-type: none"> ■ Restart ■ Shutdown ■ Power off display The power options can be set up by the user roles Engineer and Administrator. For the user role Operator, it is only allowed to run the preconfigured options.

Applications

The Applications section shows all applications. Depending on the signed-in user role, the view varies:

User Role	Description
Operator	Access to profiles (if not limited by a preconfigured auto connect). No access to "System Settings" and "Applications".
Engineer	Access to profiles, system settings, and applications (create, edit and delete profiles)
Administrator	Full access to profiles and all applications, full access to advanced settings

Profiles

The Profiles section shows all profiles that have been locally created. Every profile has its own profile tile with information on profile type (e.g., "RDP", "VNC"), profile name (e.g., "RDP - 2") and connecting status (e.g., "connected", "disconnected").

Besides the Emerson DRDC profiles, there are several other standard profile types (RDP, VNC). Please refer to the "VisuNet RM Shell 4.0 Manual" on www.pepperl-fuchs.com.

Emerson DRDC	
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You find the profile status information in the bottom left corner of each profile tile:

Status	Description	
Idle	Initial status after a profile has been created.	
Disconnected	Profile is not connected to a host.	
Connected	Profile is connected to a host PC. A green status bar at the top of the profile tile is visible.	

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Status	Description	
Connection failed	While trying to establish a connection, an error occurred.	 <p>RDP - 2 Connection Failed</p>
Auto connect	If an auto connect is enabled, a defined profile connects automatically to a host. The seconds remaining before the next connection retry are counted down in the top right corner of the profile tile. Simultaneously, an animated white status bar at the top of the profile tile is visible.	 <p>RDP - 2 Disconnected</p>

3 System Settings App

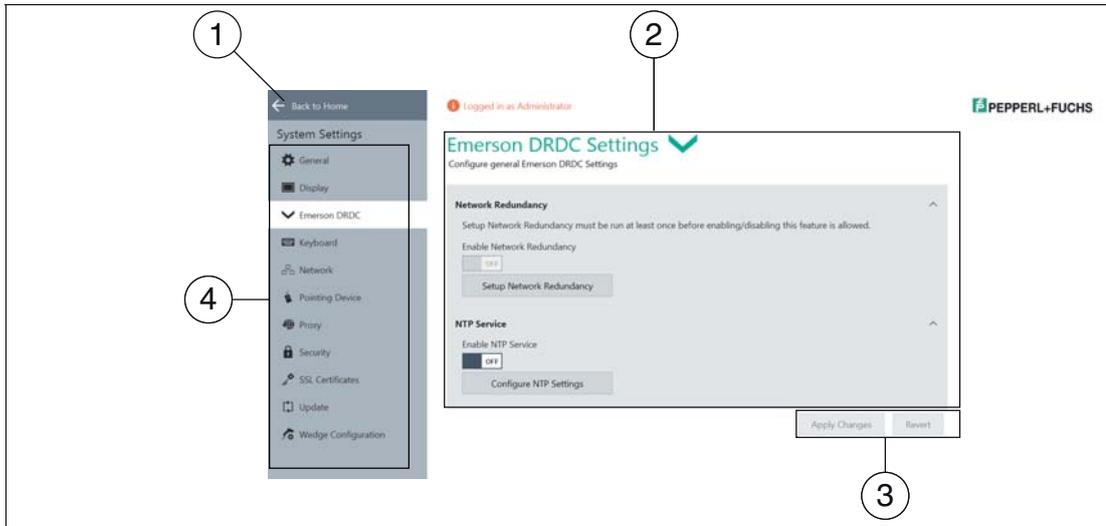


Figure 3.1 Components of the system settings app screen

1	Navigate back to home screen
2	Main page / content page
3	<ul style="list-style-type: none"> ■ Apply changes: Save changes ■ Revert: Cancel changes ■ Advanced: Only visible for Administrator role. This button opens additional Windows®-specific dialog boxes for settings that are not included in the RM Shell but may be interesting for administrators.
4	Navigation bar with all submenus



Entering System Settings



To enter the system settings, click on the system settings app on the home screen.

Specify your RM settings by using this app. By entering the system settings app, you always start with the general submenu. Besides the "Emerson DRDC" submenu, there are several other submenus. For more information on the other submenus, refer to the "VisuNet RM Shell 4.0 user manual" on www.pepperl-fuchs.com.

3.1 General Settings - License Key

For more information on all submenus in the "System Settings" app, refer to the "VisuNet RM Shell 4.0 user manual" on www.pepperl-fuchs.com.



Activating Emerson DRDC License Key

1. Start the RM Shell by logging in as "Administrator".
2. On the home screen, start the "System Settings" app.
3. In the "General" submenu, scroll down to the "License Information" section.
4. In the "License Key 1" or "License Key 2" field, type in a valid DRDC license key.

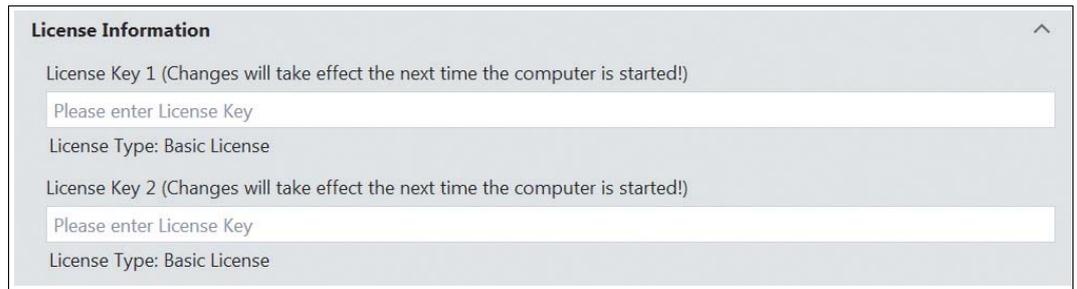


Figure 3.2 General settings - license information

5. Click "Apply changes".
6. To activate the DRDC license, restart your RM.

3.2 Emerson DRDC Settings

There are two main groups of Emerson DRDC settings:

- Network Redundancy: provides access to the Emerson Network Redundancy tool
- NTP Service: provides access to the Emerson NTP (Network Time Protocol) tool

3.2.1 Emerson DRDC Network Redundancy Setup



Note!

When you open the "Emerson DRDC settings" for the first time, the "Enable Network Redundancy" toggle switch is greyed out. To activate this feature, set up network redundancy first.



Note!

The Network Redundancy feature only works when a user is connected to a virtualized DeltaV workstation via DRDC. The Network Redundancy feature must be enabled on the virtualized DeltaV workstation. Please refer to the relevant Emerson DeltaV documentation for details on how to configure network redundancy on a virtualized DeltaV workstation.



Configuring Network Redundancy



Note!

In order to use the Emerson Network Redundancy tool, you must have each network adapter connected to a separate network subnet. You will receive an error if the network names are on the same subnet.

1. On the "Emerson DRDC" submenu in the System Settings App, click "Setup Network Redundancy".

↳ The "Network Redundancy Setup" dialog box opens.

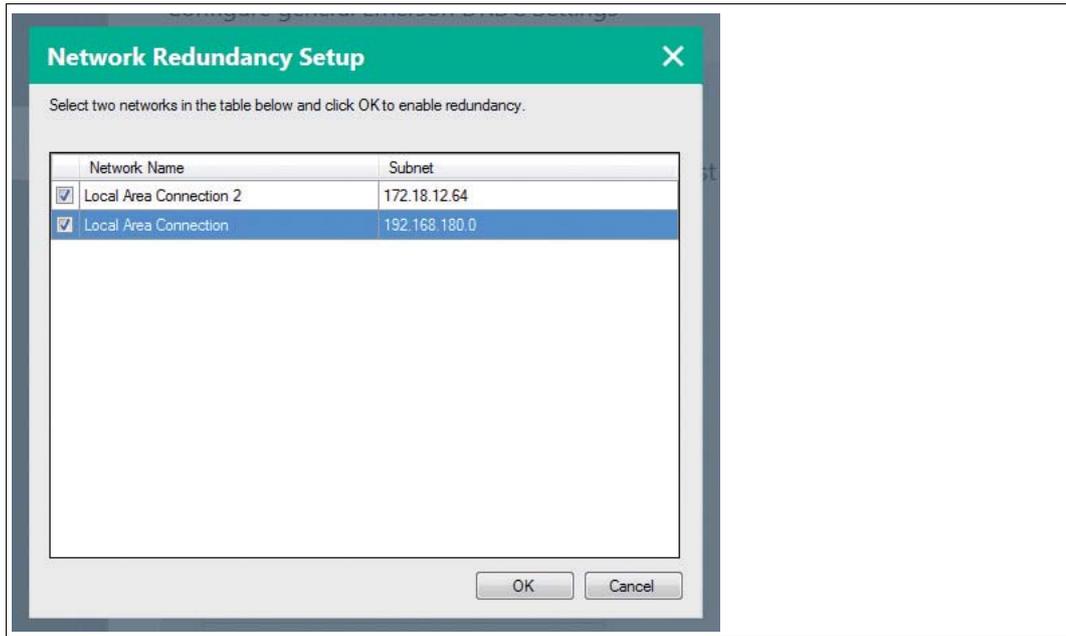


Figure 3.3 "Network Redundancy Setup" dialog box

2. Check the box next to each network name and click OK.

↳ The network redundancy setup is completed. You will return to the Emerson DRDC settings. The "Enable Network Redundancy" toggle switch is on.



Note!

To switch on/off the "Network Redundancy" feature, run the Network Redundancy Setup at least one time.

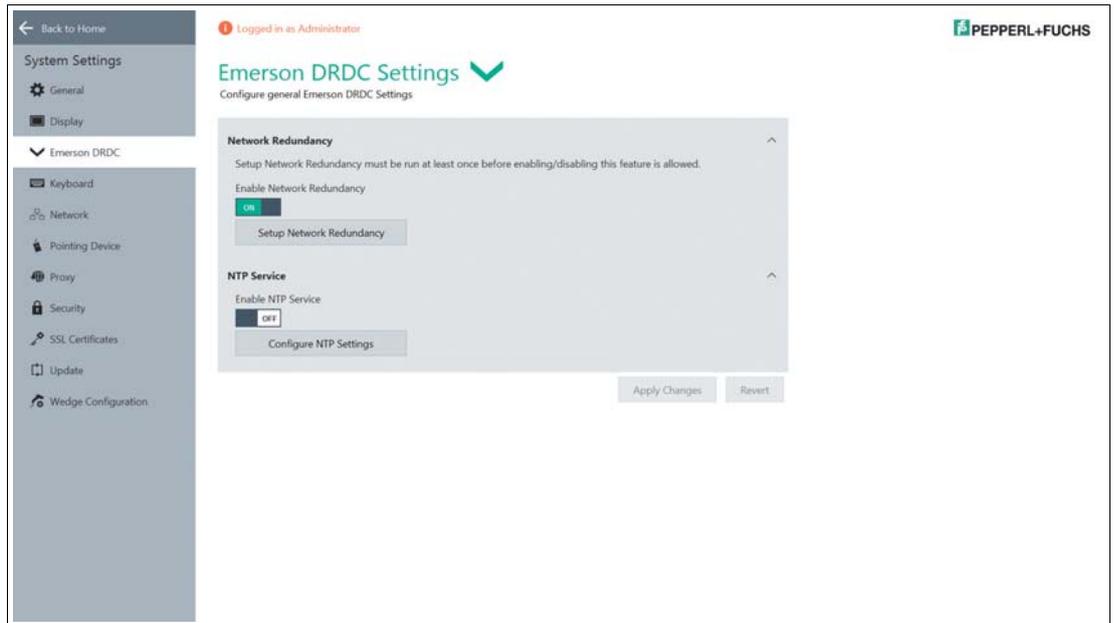


Figure 3.4 Emerson DRDC settings - network redundancy fully configured

3.2.2 Emerson DRDC Network Time Protocol (NTP)

Configuring NTP Settings



Note!

The standard role for a Pepperl+Fuchs VisuNet RM is "Thin Client Listener"; however, this setting should be configured as necessary to fit your specific system configuration.

1. On the "Emerson DRDC" submenu in the System Settings App, click "Configure NTP Settings".

↳ The "Configure NTP Settings" dialog box opens.

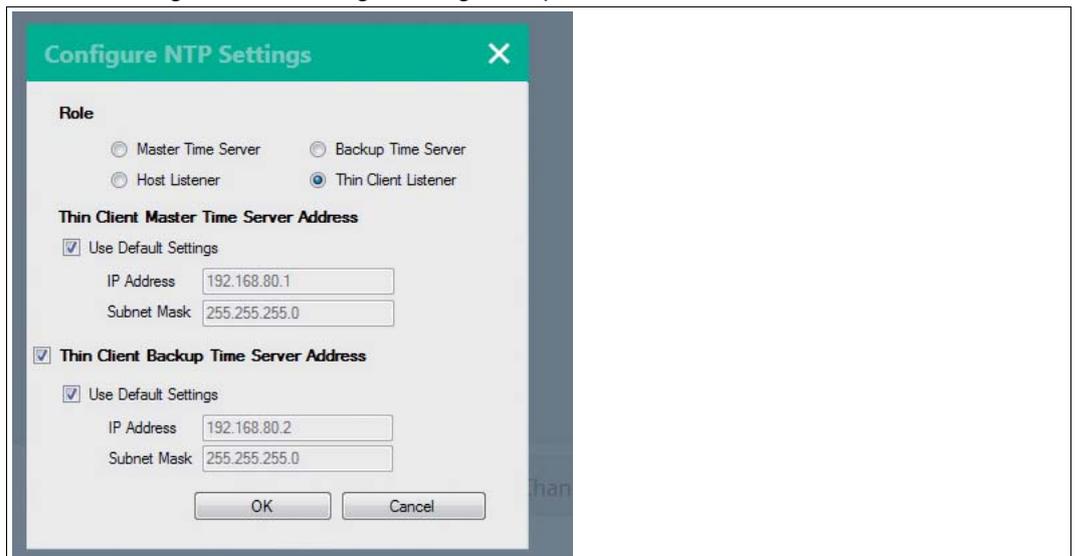


Figure 3.5 "Configure NTP Settings" dialog box

2. The standard role for a Pepperl+Fuchs VisuNet RM is "Thin Client Listener". We recommend to use the default settings.

3. After configuring the NTP settings, click OK.

↳ The "NTP Configuration Finished" dialog box opens.

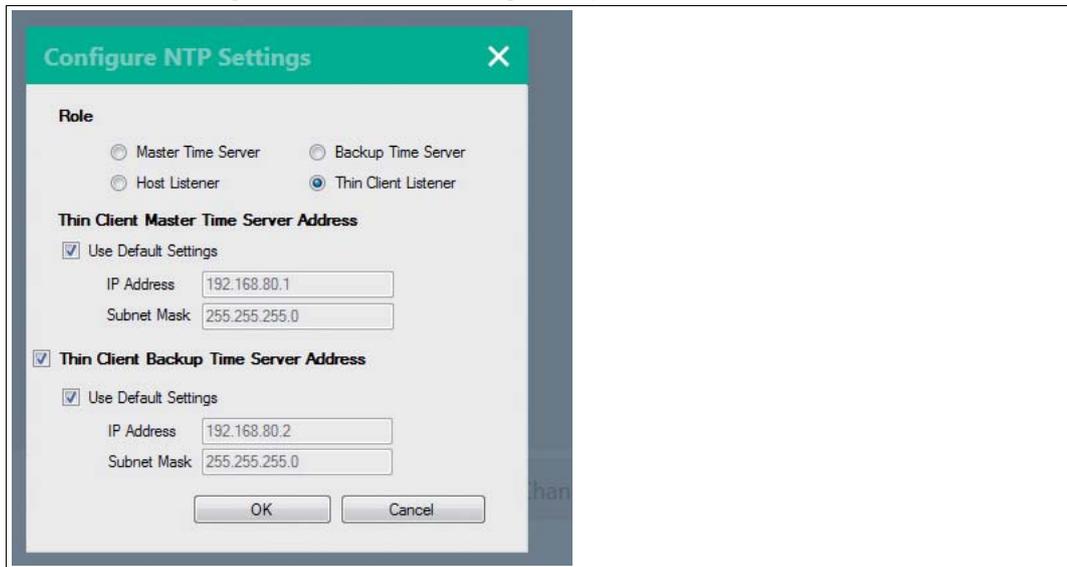


Figure 3.6 "NTP Configuration finished" dialog box

4. Click OK.

↳ After you have successfully set up the Emerson NTP settings, the "Enable NTP Service" toggle switch on the Emerson DRDC Settings page is toggled to ON.



Note!

Please note that in the current version of the "NTP settings" configuration editor, the settings can only be applied to the remote monitor. When you reopen the editor, the actual system settings are NOT displayed in the editor. Only the default values are shown.

4 Profiles Management

Create and manage the remote connection profiles with the Profiles Management App.

The RM initially comes without any created connection profiles. Therefore, the profiles list is empty when you start the RM Shell for the first time.

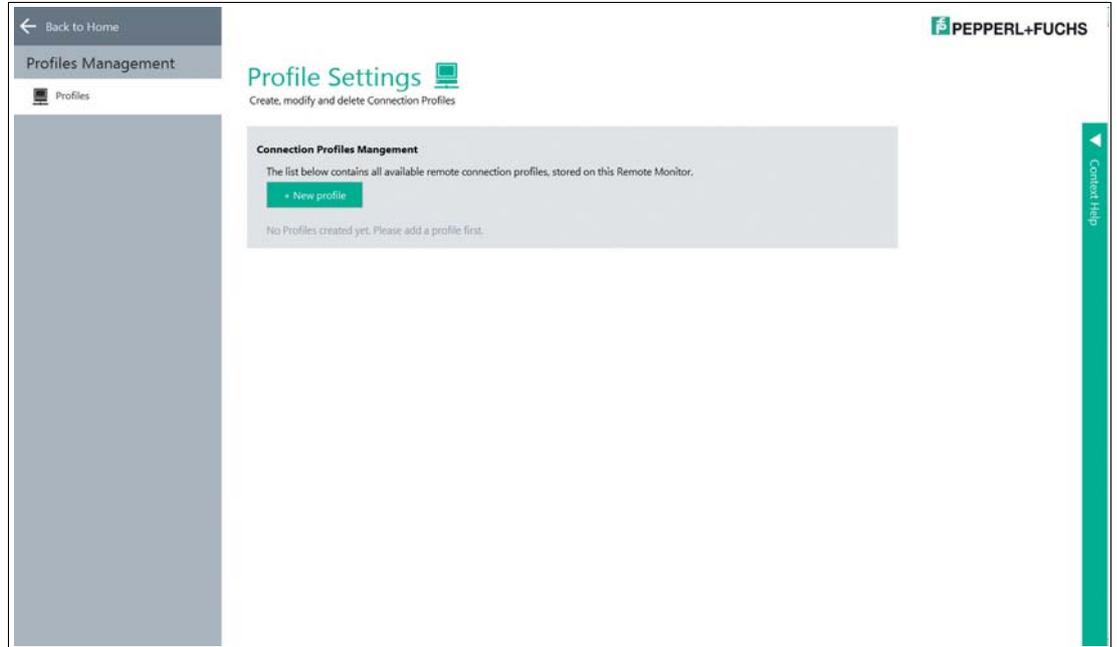


Figure 4.1 The profiles management home screen. Initially, the profiles list is empty.



Creating a new Emerson DRDC Profile

1. To create a new Emerson DRDC profile, click .
2. Select Emerson DRDC and click OK.

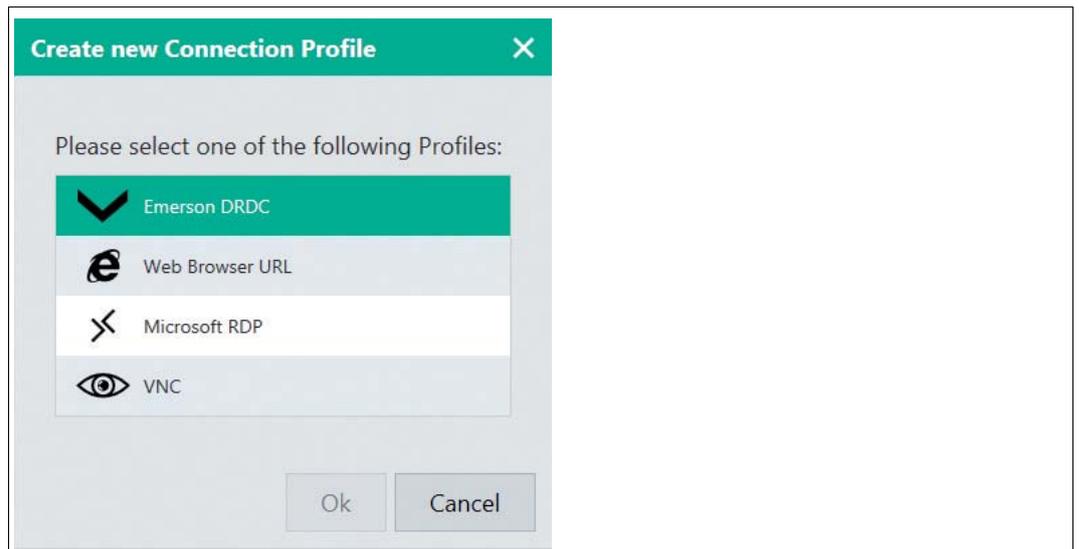


Figure 4.2 The "Create new Connections Profile" dialog box - web browser profiles are only available in the pro version.

↳ The Emerson DRDC profile has been created. The new profile's main settings open.

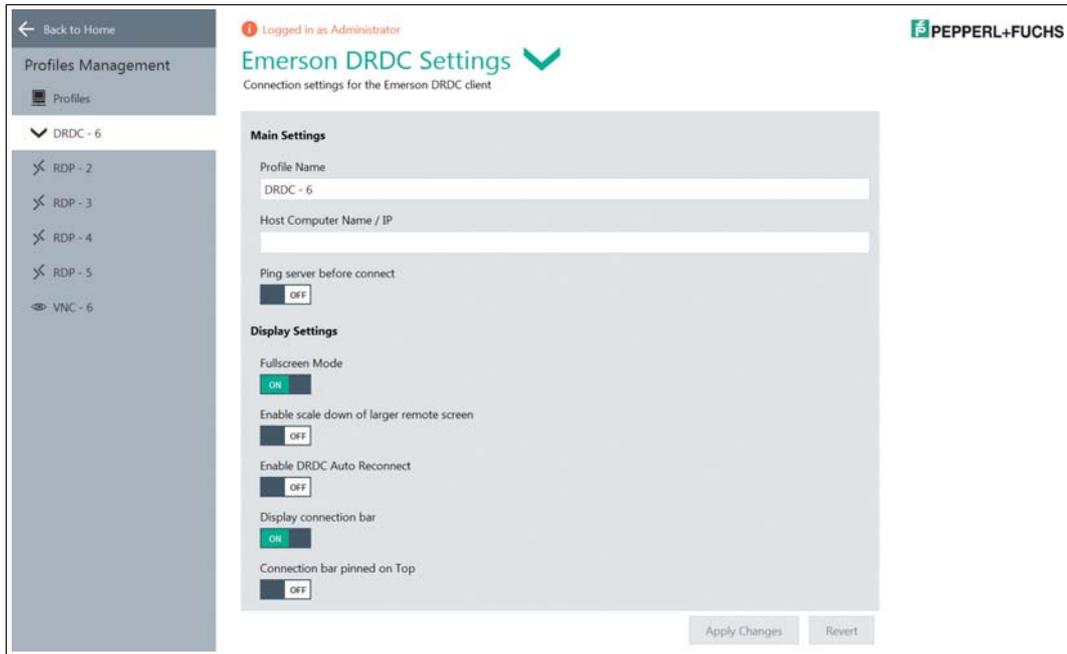


Figure 4.3 Main settings of a Emerson DRDC profile

Editing the Profile Settings

1. Go to Profile Settings.
2. To edit the settings of a profile, double-click the requested profile entry in the profiles list or click  .
3. The settings vary according to the chosen connection type. After you have edited the settings, click  .

↳ The changes have been saved.

4.1 Emerson DRDC Settings

Main Settings

Option	Description
Profile Name	Allows you to change the visible name of the selected profile.
Host Computer Name / IP	This can be the network name of the host or its IP address.
Ping server before connect	This option allows you to check if a host is available before a connection is established. If the host is not available, a configured backup connection is established.

Display settings

Option	Description
Fullscreen Mode	This option enables you to display the remote desktop in full size. If you want to set the remote desktop screen size manually, disable the option.
Enable scale down of larger remote screen	This option enables you to ensure that the entire remote desktop is shown in the client by scaling the content down.
Enable DRDC Auto Reconnect	This option enables you to use Emerson DRDC's built-in connection recovery mechanism. This mechanism also tries to reestablish a remote desktop connection when it is disturbed.
Display Connection Bar	This option enables you to show the connection bar at the top of the screen. The connection bar fades out automatically after a few seconds. It fades in when you move the mouse to the top of the screen.
Connection bar pinned on Top	This option enables you to show the connection bar permanently, when a remote desktop connection is established. The fade in / fade out option is disabled.



Note!

The "Connect to console" feature is not available as an option within the RM Shell 4.x. This feature uses "thevmconnect" command of the Microsoft RSAT tools and enables Administrators to get root access ("session 0") to a virtual machine on a Hyper-V server. The RSAT tools for Microsoft Server 2012 R2 are only available for Windows 8.1 and above. Since the RM Shell 4.x is based on Windows Embedded Standard 7, "thevmconnect" command is not available for the RM Shell.

However, to manage the virtual DeltaV workstations, you can connect via RDP to the "Domain Controller" server and use then the RSAT tools of the Domain Controller server to administrate the virtual DeltaV workstations.

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