How do you create a communication of RDP with an Industrial Thin Client SIMATIC ITC?

Thin Client FAQ • August 2012
Caution
The functions and solutions described in this article confine themselves to the realization of the automation task predominantly. Please take into account furthermore that corresponding protective measures have to be taken up in the context of Industrial Security when connecting your equipment to other parts of the plant, the enterprise network or the Internet. Further information can be found under the Content-ID 50203404.

Question
How do you create a communication of RDP with an Industrial Thin Client SIMATIC ITC?

Answer
The instructions and notes listed in this document provide a detailed answer to this question.
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1 Industrial Thin Client SIMATIC ITC – Getting Started

1.1 Introduction

With the new Industrial Thin Client SIMATIC ITC you have a powerful Thin Client solution in your hands. This device offers a wide range of connection protocols which are rounded up with other useful features.

these features are:

- Media Mapping
- PDF Reader
- Web Browser

This document helps you do the first steps with the device in order to establish a first connection to a remote computer.

1.2 Setup Assistant

To set up a first connection only a few steps are necessary. Right after the first power up or after a factory reset the setup assistant appears. The assistant helps you do the initial settings. The Setup Assistant is identical for the most part for all available connection types. These connection types are:

- RDP (Remote Desktop Protocol)
- VNC (Virtual Network Computing)
- Sm@rtServer
- Web (HTTP)

Before you can use any of these connections some prerequisites are necessary.

1.3 Remote Desktop Connection (RDP)

1.3.1 Preparations on the target computer (server computer)

With a Remote Desktop Connection a connection will be established to a remote computer using the Microsoft developed Remote Desktop Protocol (RDP). The remote Desktop Protocol is deactivated on a Windows system to prevent unauthorized access. This protocol is a component of many Windows operating systems. You find an overview of the requirements in the manual SIMATIC ITC under “SIMATIC HMI device SIMATIC ITC1200 / SIMATIC ITC1500 / SIMATIC ITC1900 / SIMATIC ITC2200 > Overview > Requirements”. It is used to connect to Windows based remote systems.
To activate the RDP in Windows Embedded Standard 2009 (WES2009) use the following steps.

- Click on the "Start" -Button of Windows.
- A Right Click on "Computer" opens a Context menu as shown in the Screenshot.
- Select the "Properties" entry.

The System Properties dialog will open. Click onto the „Remote“ tab to access the RDP settings.
• In the now open view check the CheckBox in the „Remote Desktop“ area.
• Click on „Select Remote Users...“ and add a your user.
• Activate your choice with „OK“

Note
The user login must have a password. Otherwise you can’t establish a remote connection to this computer.

Note
From now on the computer accepts connections from the Industrial Thin Client SIMATIC ITC.

Note
The IP address of the server computer. At the command prompt type the command „ipconfig“ and hit “return”. e.g.: 172.16.12.51/ 16
1.3.2 Setting for the Industrial Thin Client SIMATIC ITC

- Select the desired User Interface language in the upper right corner.
- Assign the device name.

To assign the device name, hit the box below the label „Device name“. An onscreen keyboard can be used to enter the device name.

**Note**
As an alternative method you may also connect a USB keyboard to the device.

- The next step is to change the standard password from „admin“ into something else. Hit the Button „Change administrator password“.
- Enter at first the current password (default is „admin“) and assign a new password.
- Repeat the new password by retyping it.
- Activate the new password with a click on the „OK“ Button.
Assign an IP address on the next page. In order to do that hit the “Next” Button at the upper right corner

- Select „Dynamic“, if you have an active DHCP server in the network. If so, select the method the device should use to authenticate itself to the DHCP server. Possible options are:
  - using the MAC address
  - using the Device name

- With „Static“ you manually enter the IP parameter.

- Assign an IP address from within the same subnet as the target computer is in to the Industrial Thin Client SIMATIC ITC
  Here e.g.:
  IP : 172.16.100.240
  Subnet mask: 255.255.0.0
  - Go to the next page by hitting the “Next” button.
• Select „RDP“ for the connection type.
• Name the connection for easier identification later on.
• Type the previously noted IP address of your target computer into the “Server” field e.g. 172.16.12.51
• In case necessary, enter logon credentials into the fields “User” and “Password”

This finalizes the initial settings for the Industrial Thin Client SIMATIC ITC. This enables the device to establish your first connection to the target computer.

1.3.3 Additional setting for a RDP connection

There are some more settings you can apply to a connection. They may be useful depending on the situation the Industrial Thin Client SIMATIC ITC is being used.

Enabling the checkbox „Autostart connection“ initiates an automatic connection establishment on startup of the device.

If you enable the „Show connection (Favorites)“ this connection will be listed in your favorites list. This allows for a quick connection change.

In case the Industrial Thin Client SIMATIC ITC looses the connectivity the checkbox „Reconnect automatically“ tries to reestablish the connection automatically without asking the user.
With the selection “Connect USB as drive” enables Media Mapping. This allows locally to the Industrial Thin Client SIMATIC ITC connected USB media such as USB sticks or USB hard drives to be used on the target computer as a network share.

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With the “Connect USB as drive” being disabled, all locally USB media won’t be available to the remote computer, but to the local MediaExplorer.

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The connected USB media can be used with the MediaExplorer.

- Click onto the menu and select the entry „USB devices“.
- The MediaExplorer will open

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The MedienExplorer allows access to files and documents on the USB media. Hit the folder on the left side tree view to see the content of that folder.

You may even read PDF files, since there is a PDF reader integrated into the Industrial Thin Client SIMATIC ITC. This allows you to read Manuals such as this Getting Started. Double click onto the PDF file.
1.3.4 Create a new RDP connection

With the Industrial Thin Client SIMATIC ITC it is possible to keep more than one connection operating. For this to work you need to create a new connection. Proceed as described to create a new connection.

- Click in the Industrial Thin Client SIMATIC ITC Menu onto the settings symbol. A menu will open up.
- Click on the entry „Configuration“.

In the Overview screen choose the left Symbol to allow changes.

Type in the Administrator password for the Industrial Thin Client SIMATIC ITC and hit „Logon“.
Select in the left list the entry “Connections”.

Click on “New” to create a new connection. There will be a new dialog allowing for the same settings to be made as the Setup Assistant did.
Click on "Edit" to adjust connection settings for an existing connection. A dialog will open up to allow all relevant changes to be made for the selected connection.