User guide Virtual-GT1

Version:	1.4
Status:	Draft / **Released** / Invalid
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1 Introduction

The GT1 (Group Tester One) was used as an operational workshop device for vehicle diagnosis (diagnosis, programming and encoding) in the BMW Retailer Organisation from 2004 onwards. It supported all BMW vehicles up to the development series E90 (with vehicle electrical system architecture 2000). The application/software on the GT1 was called DIS (Diagnosis and Information System).

The introduction of the new generations of the workshop systems ISTA and ISTA/P, which were focused on the newer generations of vehicles, pushed the older generations of vehicles into the background, leading to a steady decline in user-friendliness and consequently in service quality. In view of the sustained demand for servicing of older vehicles, consideration was given to virtualising the DIS application and the GT1 platform along with it, under the name Virtual-GT1. This allows its operation on the current hardware. Virtual-GT1 helps to improve service quality for older BMW vehicles.

2 System/hardware requirements

The following system and hardware requirements apply to Virtual-GT1 operation.

Operating system:	Windows 7, Windows 8, Windows 8.1, Windows 10 (32 / 64 bit)
Processor:	At least Dual Core 2 GHz
Working memory:	At least 2 GByte
Hard disk storage:	At least 25 GByte
BMW-recommended hardware:	ISID R2, ISSS Next
BMW-recommended virtualisation platform:	VMWare Player 6 (32 bit) or higher (64 bit) Link: http://www.vmware.com/
Java:	At least Java Runtime Environment 7
Vehicle interface:	ICOM A1/A2 with at least firmware 03.14.04 ICOM Next with at least firmware 03.14.10

The requirements and additional software specified here are recommendations. Operation of Virtual-GT1 on systems that follow these recommendations has been assured by BMW. In the case of deviations from the recommendations, incompatibilities and malfunctions may arise in the operation of Virtual-GT1.

Commercial use of the VMWare Player incurs licensing costs that must be borne by the users themselves.

Installing Virtual-GT1 on a device requires administrator rights on that device.

3 Installing and starting Virtual-GT1

ISPI Next release 1611 allows Virtual-GT1 to be downloaded from the DMWF using ISPI Admin Client provided that has been enabled by the market co-ordinator. To start the installation, the following two files must be copied onto the relevant device:

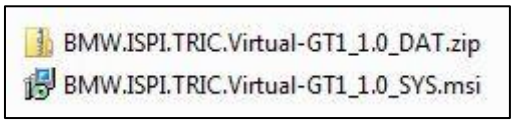

Figure 1: System and data package

Double-click the system package “SYS” to start the installation. The following window will appear:

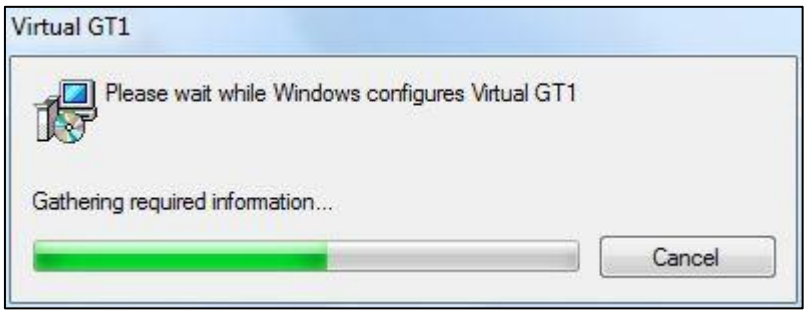

Figure 2: Installation progress

Once configuration is completed, the installation itself will be displayed with a bar showing the installation progress. Note that the progress reaches 90 percent very rapidly while the remaining 10 percent take a few minutes.

If any errors occur during installation, this will be indicated by a Windows message with an error description.

Following successful installation, Virtual-GT1 will be displayed by Windows in the list of programs and functions:

Figure 3: Entry in programs and functions

The installation log files can be found in the directory

C:\ProgramData\BMW\ISPI\logs\TRIC\ISTA-P

Figure 4: Directory of log files

The installation files for Virtual-GT1 can be found in the directory

C:\ProgramData\BMW\ISPI\data\TRIC\VirtualGT1\BMW.ISPI.TRIC.Virtual-GT1_1.0_DAT

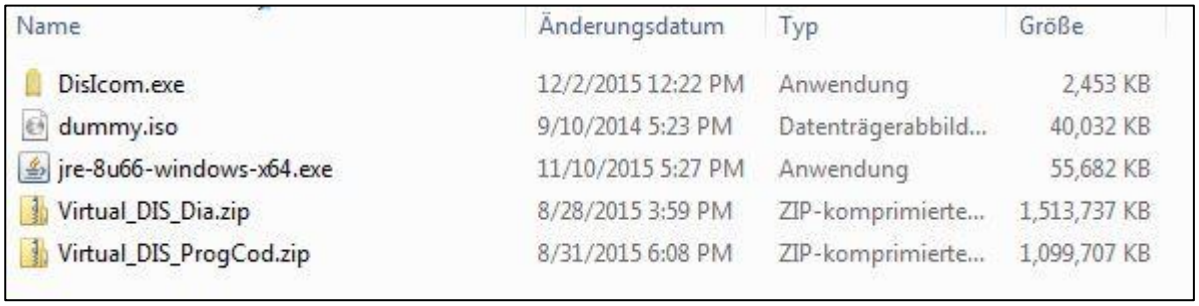

Figure 5: Directory for installation files

In order to use Virtual-GT1 for vehicle diagnosis, unpack the Virtual_DIS_DIA.zip archive in the "Virtual_DIS_Dia" folder:

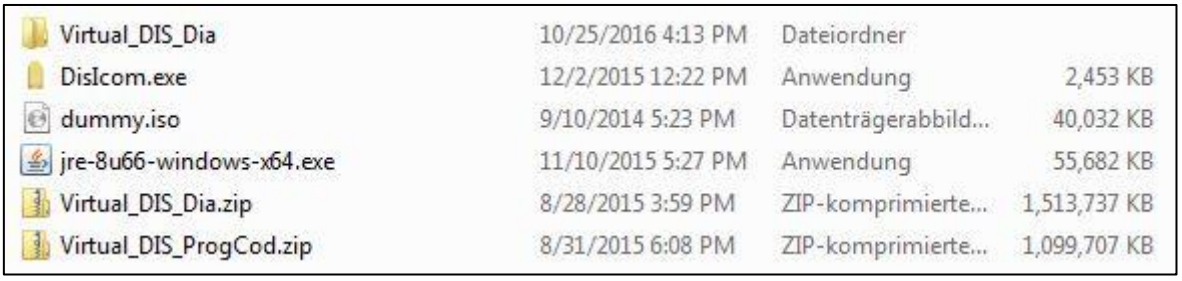

Figure 6: Installation file directory after unpacking the archive for diagnosis

If Java is not yet installed, the accompanying version can be installed (see Figure 6).

Finally, the visualisation platform must be installed on the system. BMW recommends VMware Player from VMware.

Once the visualisation platform is installed on the system as well, it can be used to start Virtual-GT1. To do so, go to the directory where you unpacked the archive earlier:

C:\ProgramData\BMW\ISPI\data\TRIC\Virtual-GT1\ BMW.ISPI.TRIC.Virtual-GT1_1.0_DAT\Virtual_DIS_Dia\VirDis_75_Diagnosis

and double-click the image file Virtual_DIS_Dia.vmx in order to open it with the virtual player:

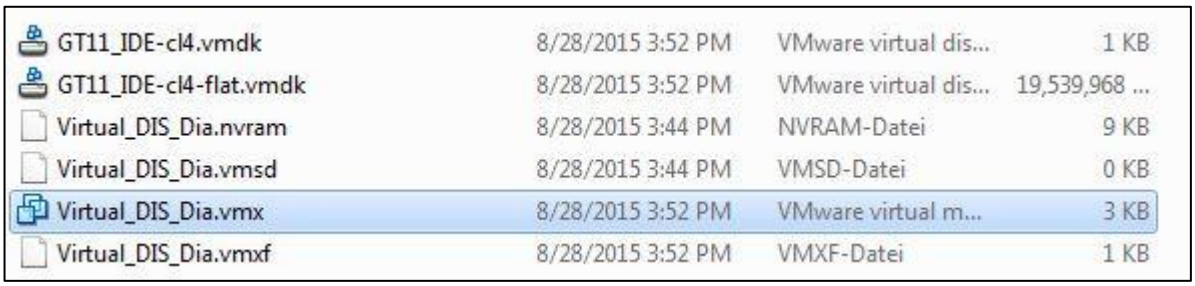

Figure 7: Virtual-GT1 image

This completes the installation process, allowing Virtual-GT1 to be used for vehicle diagnosis. If all the installation steps are followed as specified, Virtual-GT1 will start:

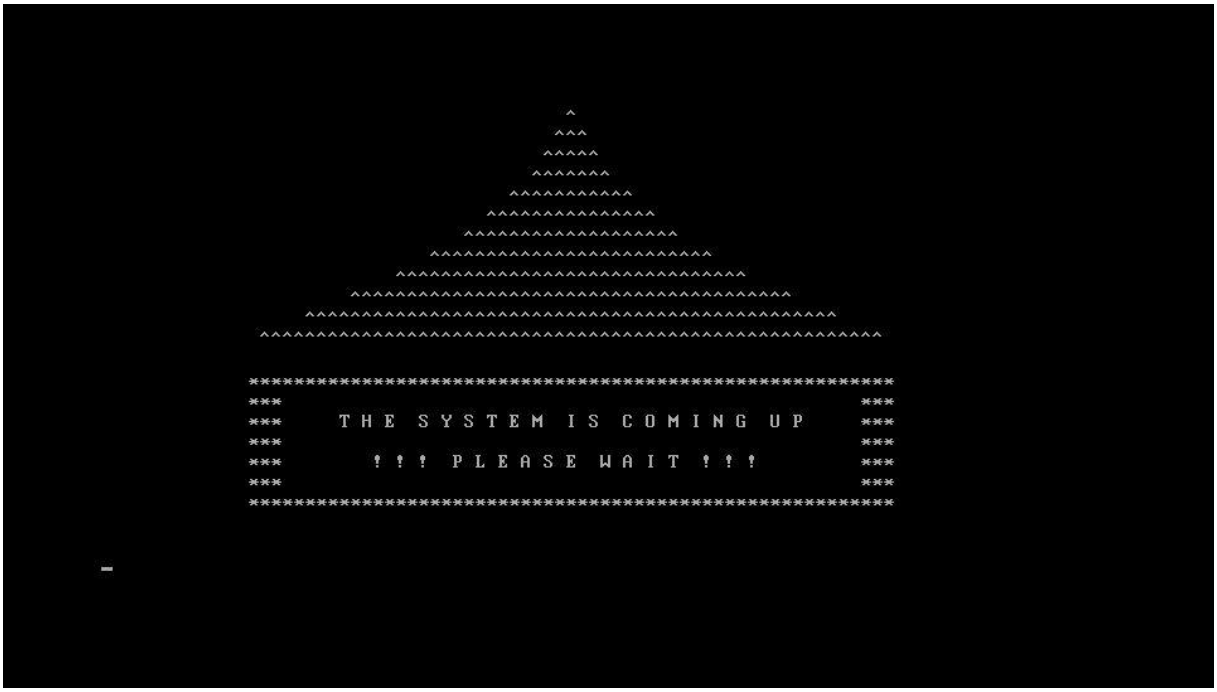

Figure 8: Starting Virtual-GT1

Starting Virtual-GT1 takes somewhat longer the first time it starts because a number of checks are carried out inside the virtual machine. The starting time is significantly shorter for subsequent starts. Once the start screen appears, Virtual-GT1 is ready for use.

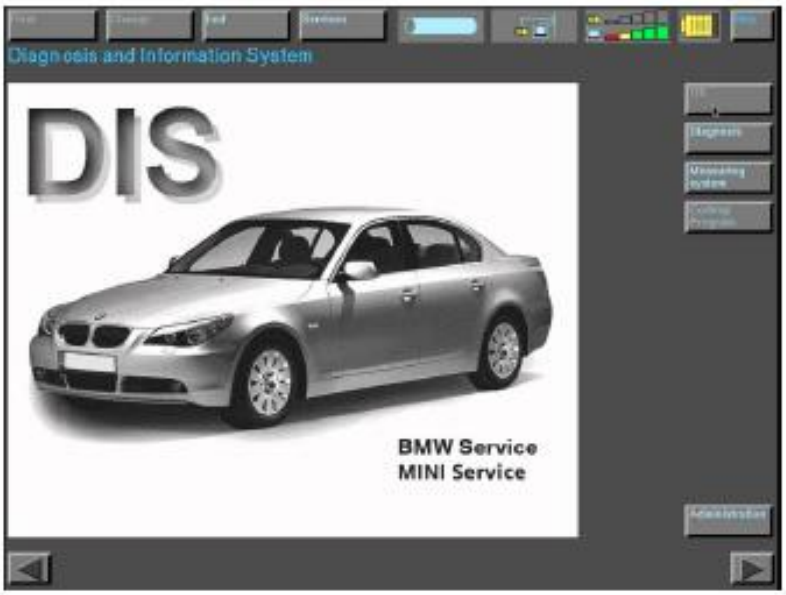

Figure 9: Virtual-GT1 start screen

The default language is English. It is not possible to select other languages.

4 Configuration of Virtual-GT1

A one-time network configuration must be carried out in Virtual-GT1 in order to be able to establish a connection to a vehicle interface. To do so, go to **Administration** and under **Config.**, select the **System** area.

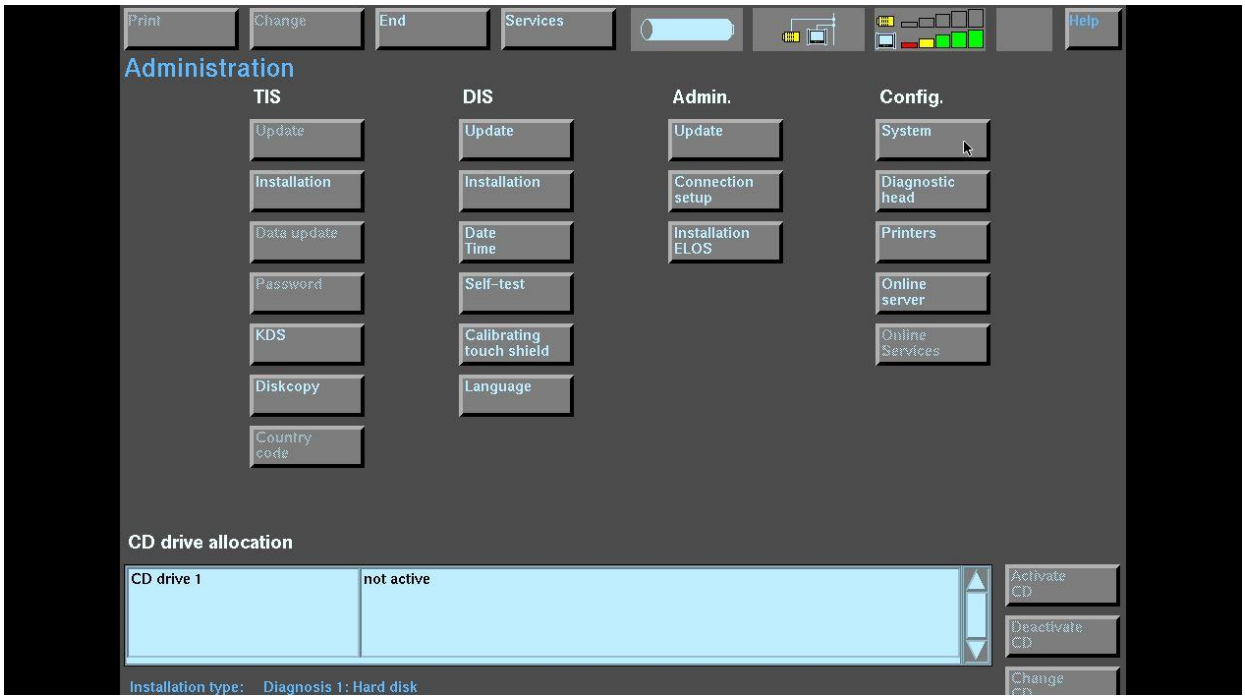

Figure 10: Virtual-GT1 administration

The system settings will now appear.

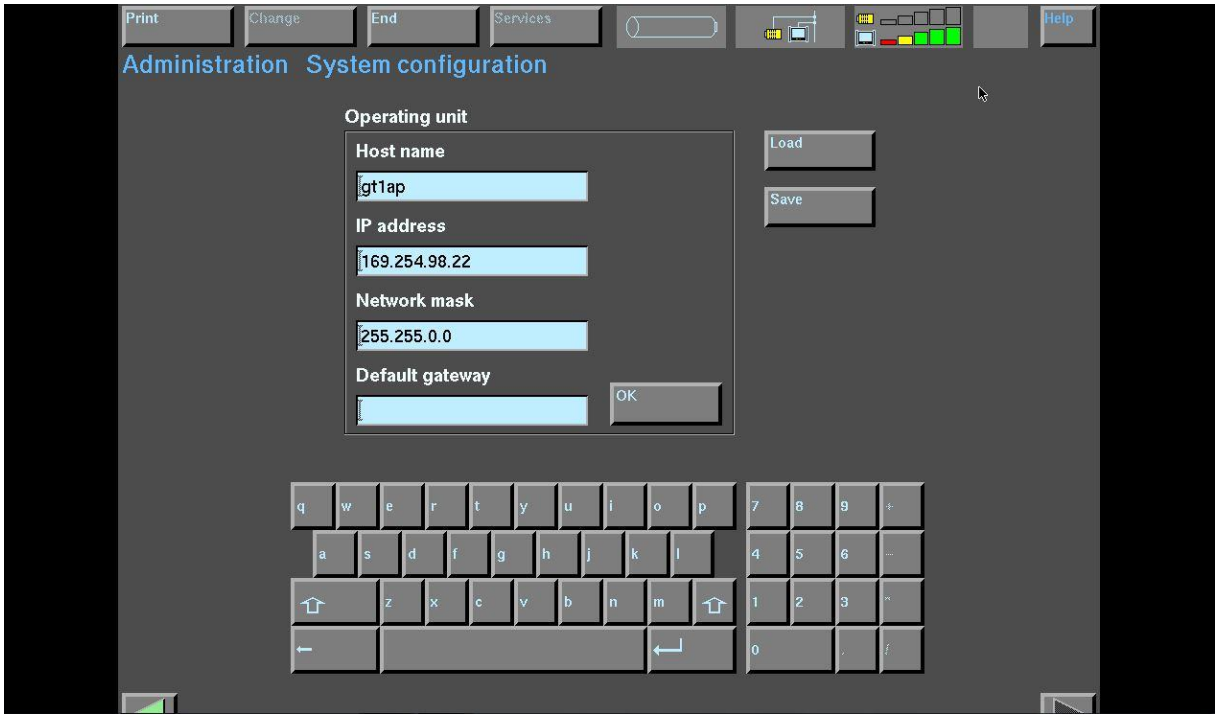

Figure 11: System settings

Under **Host name**, you can enter a name of your choice.

Configure the **IP adresse** to match the network which includes the device on which Virtual-GT1 is installed. For example:

Device IP address:	169.254.98.**10**
Virtual-GT1 IP address:	169.254.98.**22**

Note that the Virtual-GT1 IP address must not be identical to the IP address of the device.

Under **Network mask**, the default value 255.255.0.0 must not be modified.

If Virtual-GT1 and the device being used with it are part of a network and are not directly connected to the vehicle interface via Ethernet, the applicable default gateway must be entered under **Default gateway**.

Click **OK** to apply the settings. Clicking **End** will exit the system settings, causing the system to request a restart of Virtual-GT1. Virtual-GT1 will start with the new system settings.

5 Connection setup to an ICOM (A1, A2, Next)

For connection setup to an ICOM, note that the vehicle interface must first be reserved for use with Virtual-GT1. To do so, start the accompanying connection manager **DIS-Icom** (see Figure 5). The connection manager will open:

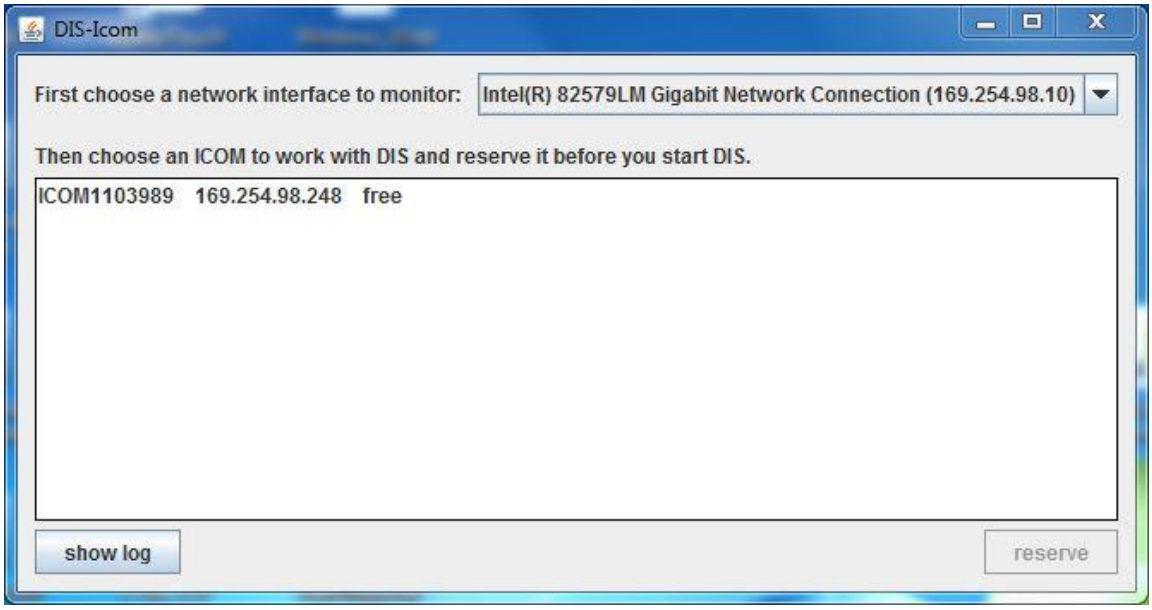

Figure 12: Connection manager DIS-Icom

The connection manager displays all the available ICOMs. Make sure that the relevant network card is selected. The ICOM being used must be selected from the list accordingly and reserved by clicking the **reserve** button. The status will change from **free** to **reserved for DIS**.

After completing the reservation, switch to Virtual-GT1, go to **Administration**, and under **Admin.**, call up the **Connection setup** area (see Figure 10). The GT1 connection manager will appear:

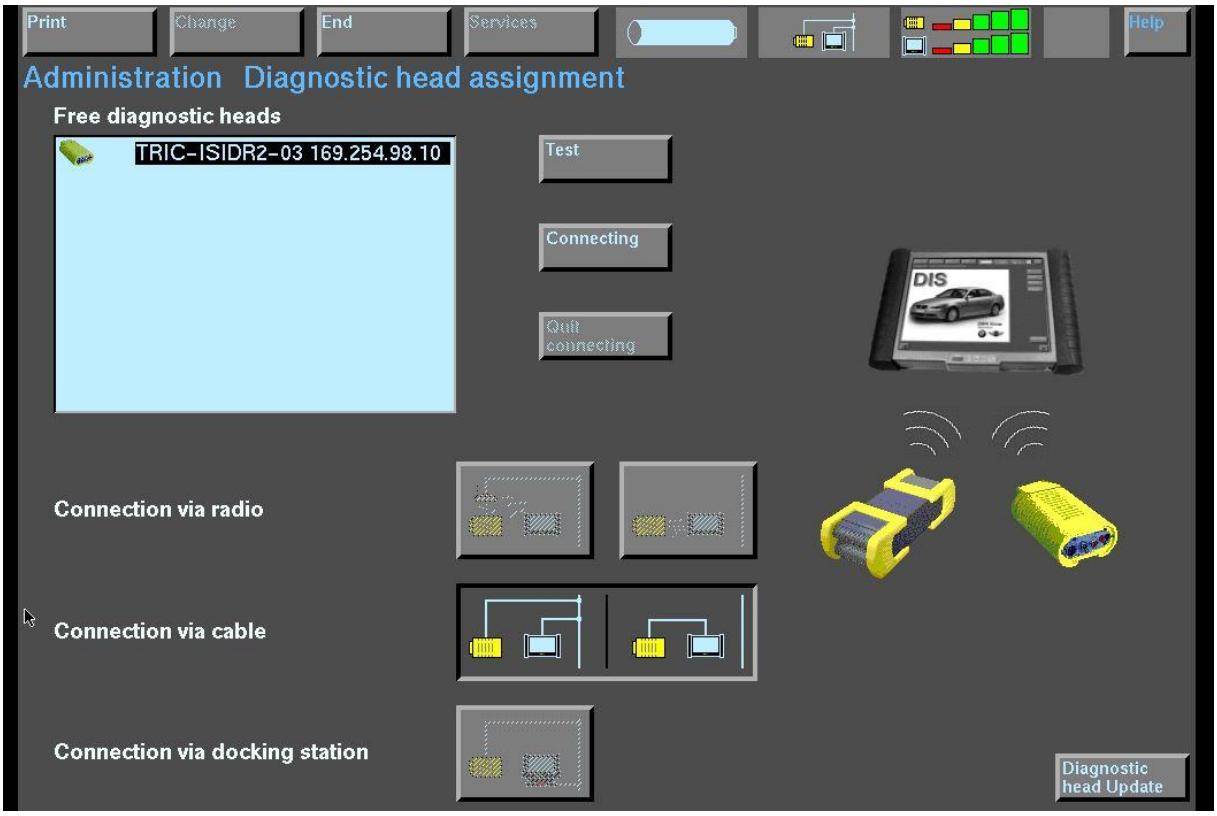

Figure 13: Connection manager Virtual-GT1

Note that the name of the vehicle interface is not displayed, but rather the device name of the system on which the connection manager is being run. You can then set up the connection by clicking the **Connecting** button.

To prevent possible connection problems, it is recommended to run the ICOM in the same subnet as the system with Virtual-GT1.

Clicking **Quit** takes you back to the start screen and Virtual-GT1 is now ready for use.

6 FAQs

Symptom: Vehicle interface is not displayed in Virtual-GT1.
Solution: If the vehicle interface is not displayed, check the following points in the following order:

1) Network adapter of the system is active and ready for use.
2) ICOM is connected to the vehicle and the LEDs on the interface are green.
3) ICOM is displayed under DIS-Icom and has been reserved.
4) Restart the system and perform the connection setup again as instructed in chapter 5.

Symptom: DIS-Icom connection manager does not open.
Solution: If the connection manager cannot be opened, the device must be restarted.

Symptom: “Read out vehicle” fails.
Solution: If there is a successful connection to an ICOM and the vehicle cannot be read out, the firewall may need to be checked and configured. The default setting of the Windows firewall blocks communication between the device and the ICOM.

7 List of figures