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TOOLBOX II Version 4.10
Installation Manual

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1. New Installation

1.1. Start of the Installation

For the installation of TOOLBOX II Version 4.10 **Windows-Administrator Rights** are required.
A detailed description of the preconditions necessary can be found in chapter 6 Preconditions.

Insert the TOOLBOX II Installation-DVD in the DVD-drive. If the computer used has been configured for an automatic installation, the installation will be started with the language selection.

Follow the instructions on the screen in order to install the TOOLBOX II.

> ⚠️ If the computer is not configured for automatic installation, perform the following steps in order to start the TOOLBOX II Installation manually:
>
> **1.** After you have inserted the TOOLBOX II Installation-DVD in the DVD-drive, first click on the Windows **START-Symbol** and in the context menu on **RUN.**
> **2.** If e.g. the DVD-drive is assigned the drive letter **D**, enter **D:\SETUP** (analogous procedure for other drive letters).

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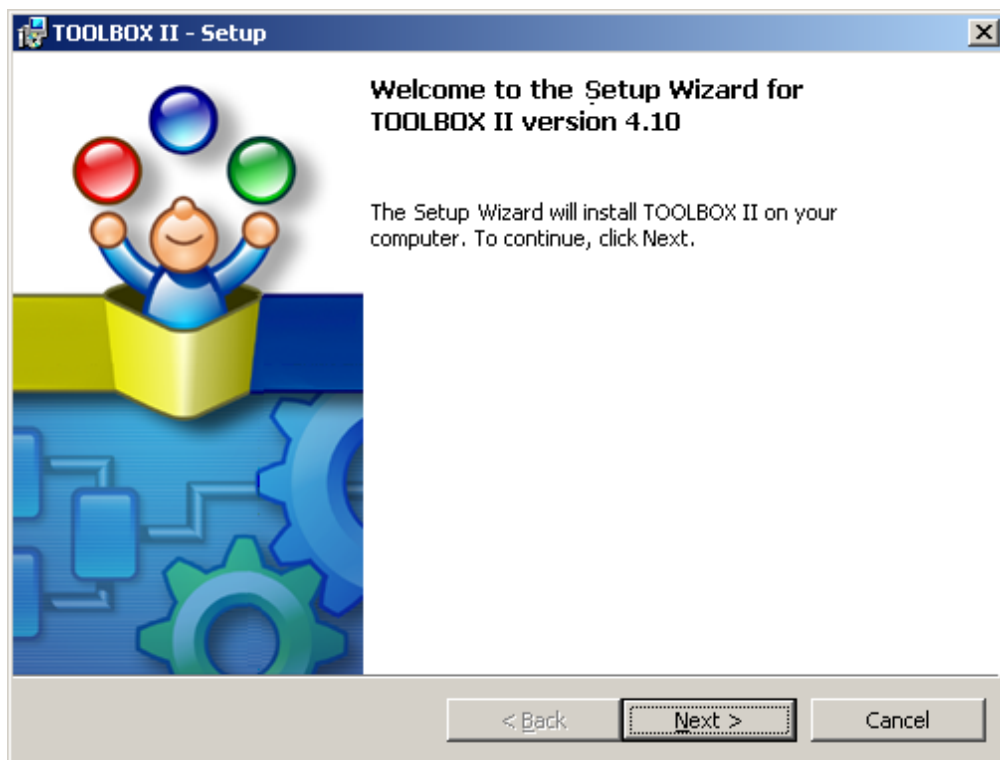
1.2. Selection of the Features

You can choose between the following two types of installation:
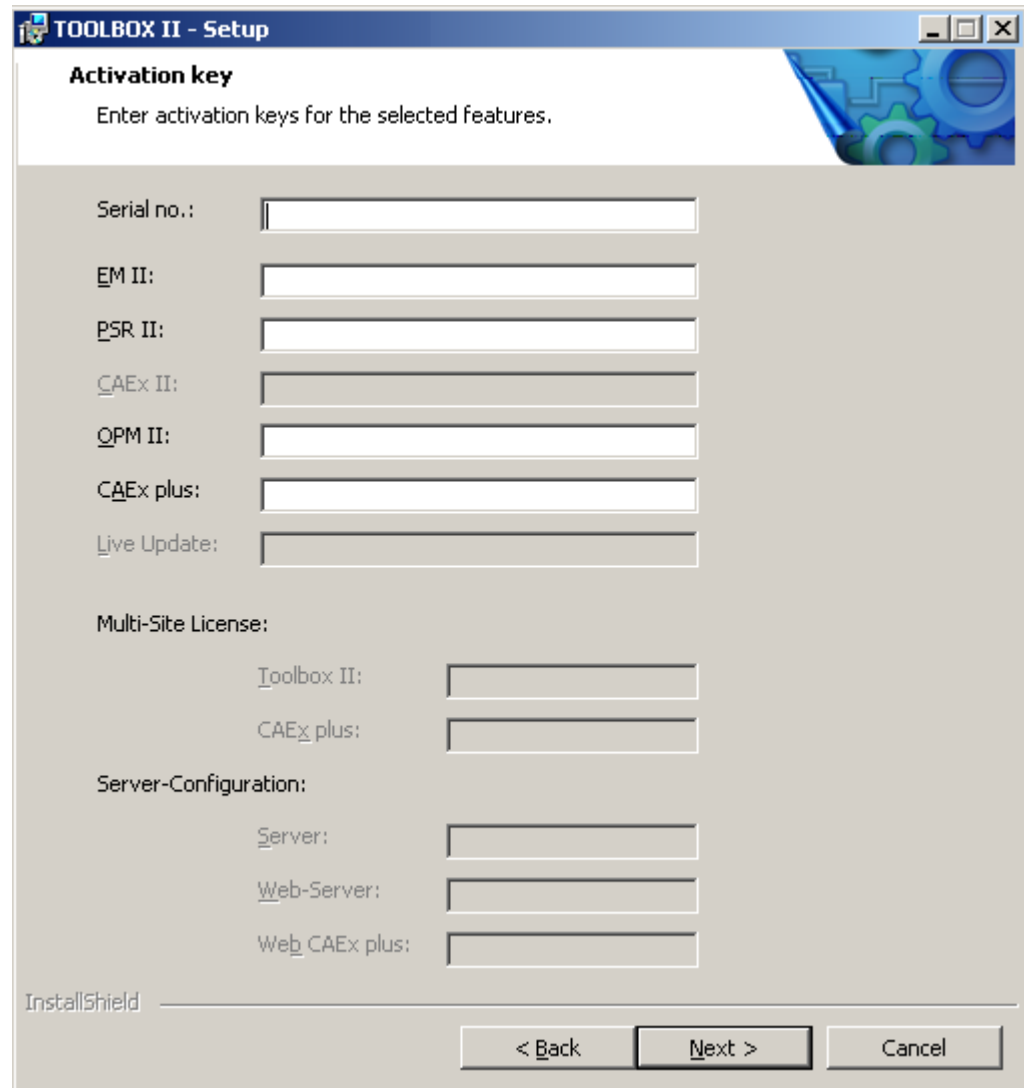
- **Standard**
  Installation of a local TOOLBOX II with the packages EM II, PSR II, OPM II and CAEx plus.

- **User-defined**
  Select the packages and tools to be installed (EM II, PSR II, CAEx II, OPM II, CAEx plus, Live Update). Select a Multi-Site License and/or a Server-Configuration for the installation optionally.
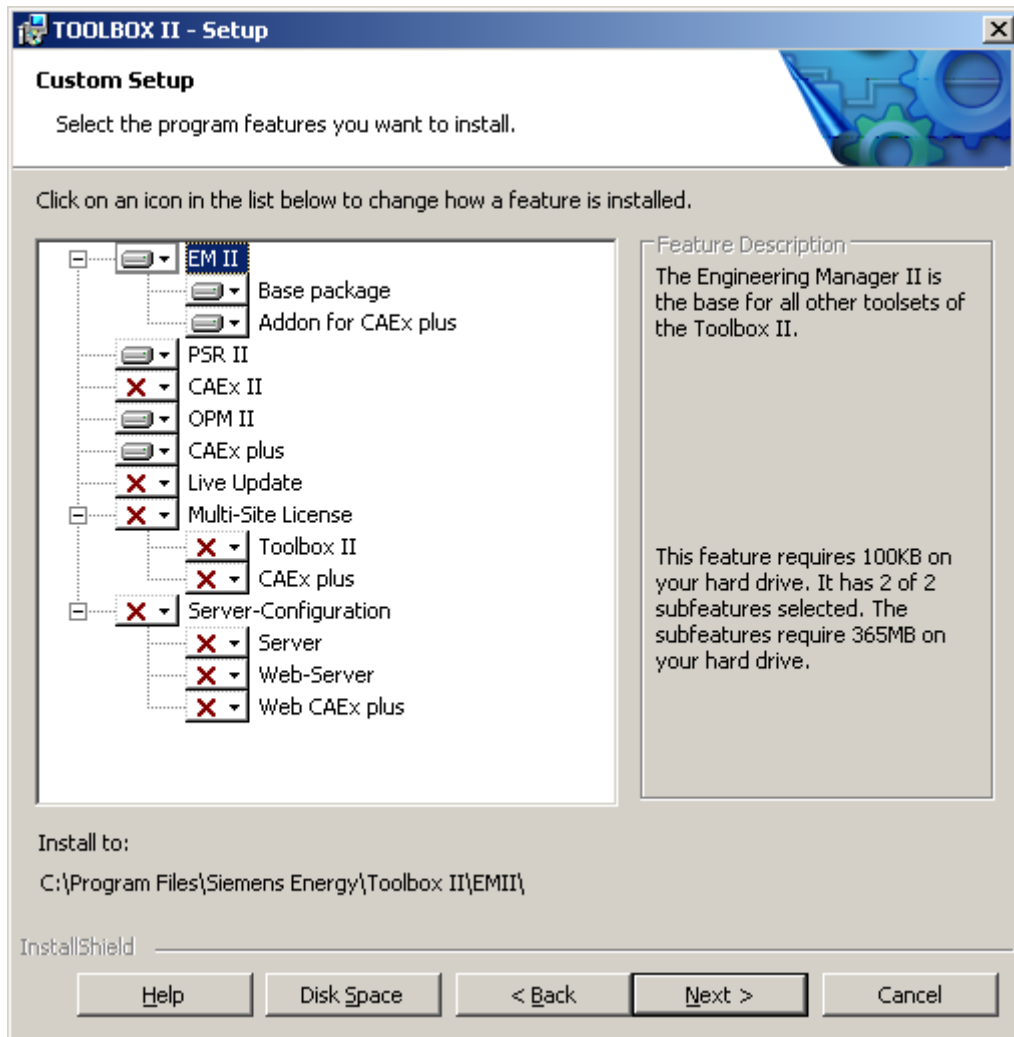
In the following dialog, please enter the necessary activation key.

Follow the rest of the instructions on the screen to install the TOOLBOX II.

2. Update

Please do not forget to backup all project data with the tool **Data Distribution Center** before the TOOLBOX II Update.

2.1. Updating from Version 4.0

Recommended method of procedure for updating to TOOLBOX II Version 4.10

1. Back up all project data with the Data Distribution Center. Additionally you can provide also a data base security as described in chapter 3.

2. Remove the existing TOOLBOX II installation (option data base receive) as described in chapter 5.1.

3. Install the **TOOLBOX II Version 4.10** as described in chapter 1.1.

An update requires 3 GB additional free temporary hard disk memory.

2.2. Updating from older Versions – before Version 4.0

A direct update from **older versions** – before Version 4.0 – is not possible due to reasons of data compatibility. In this case, in order to update to TOOLBOX II Version 4.10, the following two options are available:

Option 1: Data import/export and new installation

1. Back up all project data with the tool **Data Distribution Center**.

2. Remove the existing TOOLBOX II installation inclusive data base as described in chapter 5.2.

3. Update to the **TOOLBOX II Version 4.0** as described chapter 1.1.

4. Import the project data backed up with the tool **Data Distribution Center** to TOOLBOX II Version 4.10.

Option 2: Step by step update with TOOLBOX II Version 4.0

This option is recommended by update of servers with many different plant data, in order to update the whole data base to TOOLBOX II version 4.10.

1. To be on the safe side back up optionally all project data with the tool **Data Distribution Center**.or create a data base backup as described in chapter 3.

2. Remove the existing TOOLBOX II installation (option data base receive) as described in chapter 5.1.

3. Update to the **TOOLBOX II Version 4.0** as described in booklet version 4.0 in chapter 1.1.

4. Update to the **TOOLBOX II Version 4.10**
(refer to chapter 2.1).

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3. Create a data base backup

Use to back up the whole data base the command **TBIIDBBACKUP** with a backup directory. Start the command TBIIDBBACKUP with DOS Command Prompt in the root directory of TOOLBOX II Installation DVD.

Example: `TBIIDBBACKUP D:\TBII_DB_BACKUP`

⚠️ Restore of a data base

For restoring a data base backup please contact
the Siemens PTD Customer Support Center

Tel.: +49 180/524 70 00
Fax: +49 180/524 24 71
E-mail: support.energy@siemens.com

www.siemens.com/energy-support

4. Adding or Removing TOOLBOX II Features

You have the possibility of subsequently adding or removing individual tools (e.g. CAEx plus). To do this, choose the following method:

1. Click on the Windows **START-Symbol** and then in the context menu on **SETTINGS** and **CONTROL PANEL**.

2. Click on the symbol **SOFTWARE,** select the entry **TOOLBOX II** and click on the button **CHANGE**.

3. Mark **ADD OR REMOVE FEATURES** and click on **NEXT**

4. Activate or deactivate individual tools and click on **NEXT**

5. Enter the necessary activation key and click on **NEXT**

The TOOLBOX II Installation executes the changes performed.

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5. Removing the existing TOOLBOX II Version

5.1. Do not delete TOOLBOX II data base (update to version 4.10)

⚠️ Please do not forget to backup all project data with the tool **Data Distribution Center** before removing the TOOLBOX II.

Removing the TOOLBOX II

1. Click on the Windows *START-Symbol* and then in the context menu on *SETTINGS* and *CONTROL PANEL*.
2. Click on the symbol *ADD OR REMOVE PROGRAMS*, select the entry TOOLBOX II and click on the button *CHANGE*.
3. Mark *REMOVE* and click on *NEXT*.
4. Confirm the inquiry to delete the local database with *NO* and click on *NEXT*.
5. The removal of the TOOLBOX II with the deletion of the local database is started with the button *REMOVE*.

5.2. Removing TOOLBOX II inclusive data base

⚠️ Please do not forget to backup all project data with the tool **Data Distribution Center** before removing the TOOLBOX II.

Consider to back up other engineering data (e.g. SCALA) before data base removal.

Removing the TOOLBOX II

1. Click on the Windows *START-Symbol* and then in the context menu on *SETTINGS* and *CONTROL PANEL*.
2. Click on the symbol *ADD OR REMOVE PROGRAMS*, select the entry TOOLBOX II and click on the button *CHANGE*.
3. Mark *REMOVE* and click on *NEXT*.
4. Confirm the inquiry to delete the local database with *YES* and click on *NEXT*.
5. Confirm the additional security inquiry to remove the entire TOOLBOX II and the local database with *YES* and click on *NEXT*.
6. The removal of the TOOLBOX II with the deletion of the local database is started with the button *REMOVE*.

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6. Preconditions

6.1. Installation

For the installation of the TOOLBOX II, the following preconditions are required:

- DVD-Drive
- Windows Standard-Administrator-Rights
  (Read and Write rights on the file system and the Windows Registry)
- NTFS-Partition
- Installed TCP/IP
- Other ORACLE applications must not be installed on the computer (Database, Client, etc …)
- A C:\-drive must exist
- Necessary Windows Regional Options:
    - 'Dot' for decimal separating character and 'comma' for the thousands separating character must be different.
    - No 'single inverted comma' may be used as separating character.
- Use of Windows Fonts in normal size (96 DPI)
- Microsoft Internet Explorer from Version 6.0
- Macromedia Flash Player from Version 7.0 (to play online help tutorial videos), see Installation-DVD directory \MACROMEDIA or www.macromedia.com
- A first installation requires 3.5 GB of free hard disk memory
- For an update, an additional 3 GB of temporary hard disk memory is required
  (refer to chapter 2)

6.2. Operation

For the operation of the TOOLBOX II, the following operating systems (32 Bit platform) are supported:

Configuration	Operating System
TOOLBOX II **Local**	Windows XP Professional (from Service Pack 2)
TOOLBOX II **Server**	Windows Server 2003 (from Service Pack 2)
TOOLBOX II **Web Server**	Windows Server 2003 (from Service Pack 2) with Terminal Services

For the use of TOOLBOX II, user rights of the goup "User" under Microsoft Windows are required.

6.3. Hardware

The hardware requirements necessary differ depending on the operation of the TOOLBOX II.
Thereby it is to distinguish, whether the TOOLBOX II is operated on a local PC, on a network server or on a terminal server.

In general, the hardware resources listed below are applicable as recommendations.
An employment of less powerful hardware is possible in principle, but accordingly the performance decreases considerably.

In addition, it should be pointed out, that with the memory configuration of the PC, the memory requirements and also the hard disk space of the operating system and all applications running parallel to the TOOLBOX II (e.g. Microsoft Access, Microsoft Word, Microsoft Outlook etc.) have to be considered.

6.3.1. Applications with OPM II

System	RAM (main memory)	Disk (GB)	CPU	
TOOLBOX II - PC	1 GB	40	Pentium 4 2 GHz	minimum requirement
Notebook	2 GB	80	Core 2 Duo 1,8 GHz	
Workstation	3 GB	160	Core 2 Duo 2,4 GHz	recommended requirement
Server	4 GB	2 x 250 (RAID)	XEON-5160 3 GHz	

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6.3.2. Applications with CAEx plus

From TOOLBOX II Version 4.0, for CAEx plus a dongle for USB or parallel port is provided.

6.3.3. Applications with CAEx II

For the operation of CAEx II, a PC with EGA graphics resolution is absolutely necessary. Whether CAEx II operates fault-free on a PC can be checked with a test program. This test program is located on the Siemens Homepage www.sicam.de area Downloads TOOLBOX II.

> From TOOLBOX II Version 4.0, for CAEx II a dongle for USB or parallel port is provided.

7. Compatibility

The engineering and consequently the acquisition and modeling of the plant data represent high value capital goods.

From this consideration it naturally follows, that existing engineering data of the existing TOOLBOX II Version 3.xx and 4.0 can continue to be used and can be imported into the new Version 4.10.

Backup/Export-Files, that have been created with Version 4.10 cannot be imported into earlier versions (< Version 4.0).

An Update of TOOLBOX II to Version 4.10 is only possible from Version 3.0 (not from older versions – refer to chapter 2.1 Updating from Version).

> When importing backups of earlier versions (< 4.0) existing function diagram data of CAEx plus are automatically converted to the new version of TOOLBOX II 4.10.
>
> Depending on the scope of the engineering data, this procedure can take some time.

8. Configuration - Server / Client

It is possible to operate every TOOLBOX II Installation as Server (Database). Thereby the following conditions must be fulfilled on the Server and Client.

8.1. Configuration TOOLBOX II Server

The following preconditions are necessary on the Server:

1. **Version of the TOOLBOX II Installation**

   Ensure, that the same TOOLBOX II Version is installed on the Server and Client.

2. **Network connection from the Server via TCP/IP to the Clients**

   Verify the network connection with the following DOS-command:

   PING <Hostname of the Client > | <IP-Address> e.g. PING 192.168.1.11 or PING vcl1234

   Note:
   You determine the hostname on the Client with the DOS-command **HOSTNAME** or the IP-Address with the DOS-command **IPCONFIG**.

3. **ORACLE Configuration:**

   With a standard installation, the correct Oracle-configuration is set automatically during the installation.

   In the directory of the TOOLBOX II installation drive **\SATTBII\ORANT\NETWORK\ADMIN**, among other things there is the file **LISTENER.ORA.**

   With problems, ensure that in this configuration file for ORACLE the hostname of the server is entered correctly. You can open and edit this file with the Windows **NOTEPAD**.

   LISTENER.ORA

```
LISTENER =
  (DESCRIPTION_LIST =
    (DESCRIPTION =
      (ADDRESS = (PROTOCOL = IPC)(KEY = EXTPROC0))
    )
    (DESCRIPTION =
      (ADDRESS = (PROTOCOL = TCP)(HOST = <HOSTNAME> or <IP-Address>)(PORT = 1521))
    )
    (DESCRIPTION =
      (ADDRESS = (PROTOCOL = TCP)(HOST = <HOSTNAME> or <IP-Address>)(PORT = 2481))
      (PROTOCOL_STACK =
        (PRESENTATION = GIOP)
        (SESSION = RAW)
      )
    )
    (DESCRIPTION =
      (ADDRESS = (PROTOCOL = IPC)(KEY = TBII))
 ..
```

4. **Drive for CAEx II Project Data**

    Create a directory \TBIIDATA and enable this for other users in the network under the name 'TBIIDATA' (network resource). Assign the network resource 'TBIIDATA' a free drive letter.

    Note:
    You need this drive for plant data that are not stored in the database (CAEx II).

    In the Customers and System Technique Wizard, this drive letter must be specified as CAEx II drive (changes are possible in the plant management).

5. **Security Settings (Firewall)**

    Ensure, that with Firewall installed and activated, the Server **does not** block the **Oracle PORT 1521**, so that the access to the Server database can take place.

    Ensure, that by enabling network resources on the server, the **TCP-Ports 139 and 445** are **not** blocked.

TOOLBOX II – Client 1

TOOLBOX II – Client 2

LAN / WAN

TOOLBOX II – Client X
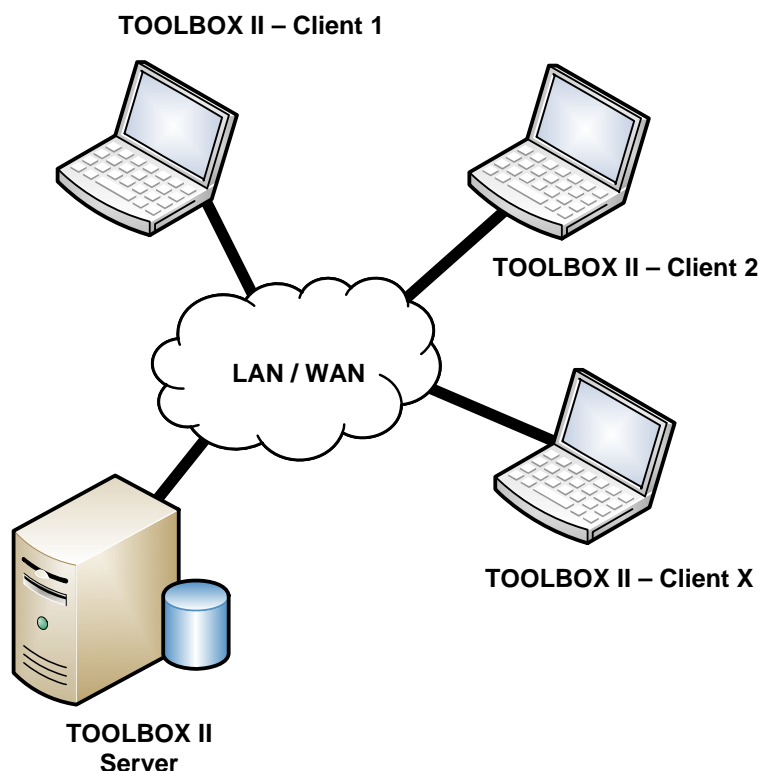
TOOLBOX II Server

A simple TOOLBOX II Client / Server operation (1 Client and 1 Server) can also be realized without Server-License.

8.2. Configuration TOOLBOX II Client

The user must preset the server database on the TOOLBOX II Client in the tool Presets TOOLBOX II.

| PRESETS TOOLBOX II | DATABASE | OPERATION ON SERVER

The following preconditions are necessary on the Client:

1. **Version of the TOOLBOX II Installation**

   Ensure, that the same TOOLBOX II Version is installed on the Server and Client.

2. **Network connection from the Client via TCP/IP to the Server**

   Verify the network connection with the following DOS-command:

   PING <Hostname of the Server > | <IP-Address> e.g. PING 192.168.1.11 or PING vcl1234

   Note:
   You determine the hostname on the Server with the DOS-command **HOSTNAME** or the
   IP-Address with the DOS-command **IPCONFIG**.

3. **ORACLE Database connection from Client to Server**

   Verify the Oracle database connection from the Client to the Server with the following DOS-command:

   TNSPING <Name of the Database-Server > | <IP-Address> e.g. TNSPING 192.168.1.11 or
   TNSPING TBII

   With problems, check the file TNSNAMES.ORA described in the following point.

4. **ORACLE configuration on the Client**

   In the directory of the TOOLBOX II Installation drive **\SATTBII\ORANT\NETWORK\ADMIN**,
   among other things there is the file **TNSNAMES.ORA.**

   Replace the entry **COMPUTERNAME_SERVER** with the hostname or the IP-address of the
   Server. You can open and edit this file with Windows **NOTEPAD**.

   TNSNAMES.ORA

```
TBII.NETWORK =
 (DESCRIPTION =
   (ADDRESS_LIST =
     (ADDRESS = (PROTOCOL = TCP)(HOST = COMPUTERNAME_SERVER) (PORT = 1521))
   )
   (CONNECT_DATA =
     (SID = TBII)
   )
  )
```

5. **Drive for CAEx II Project Data**

   In the Customers and System Technique Wizard, as CAEx II drive, that drive letter must be
   specified which is linked with the enabling of the project data on the Server (changes are possible
   in the plant management).

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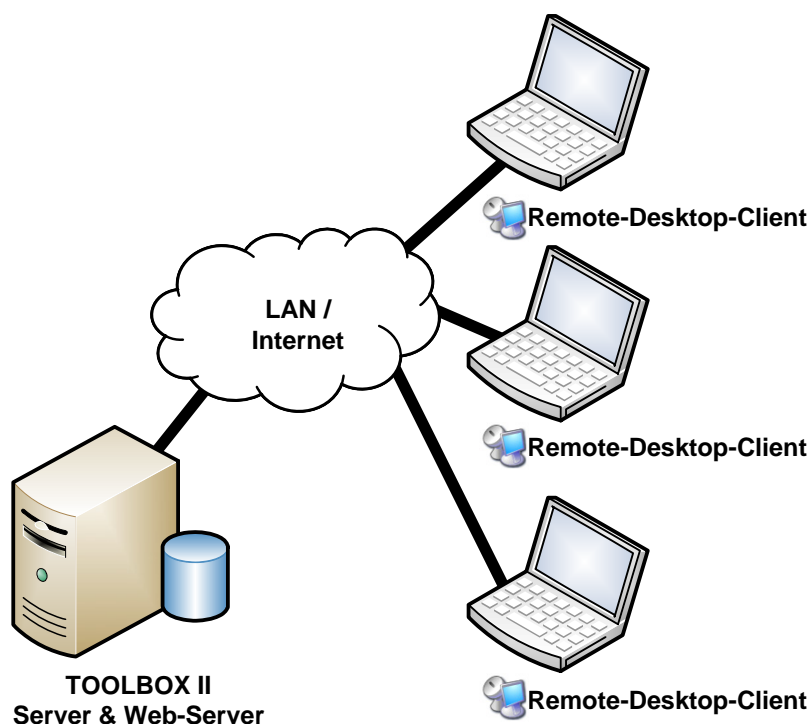
9. Web-Engineering

It is possible to operate the TOOLBOX II with the Remote-Desktop-Connection. Thereby all TOOLBOX II Clients work with a central Terminal-Server, on which the TOOLBOX II is installed.

On the Client, no TOOLBOX II Installation is necessary. The function can be used from Microsoft standard application **Remote-Desktop-Connection** (All Programs | Accessories | Communications).

As Server, a Windows Server with **Terminal Services** has to be installed.

On this Server a TOOLBOX II Installation is then performed with additional Server and Web-Server License.

A detailed description of the configuration of the Web-Server and the Client can be found in the *Online Help* (chapter web.engineering).

Web-Engineering with **CAEx plus** requires in addition a special CAEx plus Web-Server License. This also includes a special CAEx plus Web Dongle.

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10. Security

In the following chapter, all necessary security settings - TCP Ports – are described for the operation of the TOOLBOX II in combination with a **Software-Firewall** or **Hardware-Firewall** respectively.

The following scenarios are to distinguish:

- TOOLBOX II Client / Server - Operation

- Communication TOOLBOX II – SAT 250

- Remote operation of a TOOLBOX II computer with SICAM 1703 and SAT 1703 automation units

- TOOLBOX II Web-Server with Web CAEx plus Dongle

- File enabling

Firewall Configuration	Port	Direction	Source-IP (optional)	Target-IP
TB II – Server	TCP 1521 TCP 1522	incoming	TB II-Client	TB II Server
TB II – 250 (PV-Transfer)	TCP 2127	incoming	TB II-Client	SAT 250 PC
Remote Operation TB II – SICAM 1703 and SAT 1703	TCP 2001 e.g. ET0x Ethernet Interface	incoming	TB II-Client	1703 (e.g. AK 1703 ACP)
TB II (Web)-Server with CAEx plus Web Dongle	TCP 3047 UDP 3047	incoming outgoing	TB II-Client	TB II (Web-)Server
File Sharing (TB II-Server)	TCP 139 TCP 445	incoming	TB II-Client	TB II Server

A detailed description of the configuration of the Server and the Client can be found in the *Online Help* (chapter General – Security Settings).

Current information can be found on our homepage www.sicam.de (area TOOLBOX II) in the Downloads section.

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