

MEASUREMENT CENTER

- Installation Guide

Original Instructions

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We have checked the contents of this manual for agreement with the hardware and software described. Since deviations cannot be precluded entirely, we cannot guarantee full agreement. However, the data in this manual are reviewed regularly and any necessary corrections are included in subsequent editions. Suggestions for improvement are welcome.

All configurations and specifications are subject to change without notice.

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General

The Bruker AXS MEASUREMENT CENTER can be installed under Microsoft Windows only.

1 Uninstalling an Existing Version of the Software - Step 1

1. Start the **Windows Control** panel and select **Programs and Features**.
2. Uninstall all existing versions of the Bruker AXS MEASUREMENT CENTER.
3. Verify that the installation directory is empty. These are usually the folders:
C:\Program Files (x86)\Bruker AXS\DIFFRAC.MEASUREMENT CENTER
or
C:\Program Files (x86)\Bruker AXS\SPECTRA.ELEMENTS

2 Starting the Setup Program - Step 2

1. Start the **Bruker AXS MEASUREMENT CENTER setup** program by double clicking with the left mouse button on the **BRUKERMC x_xx.exe** file (**x_xx** contains the version of the software e.g. BRUKERMC 1_04.exe).

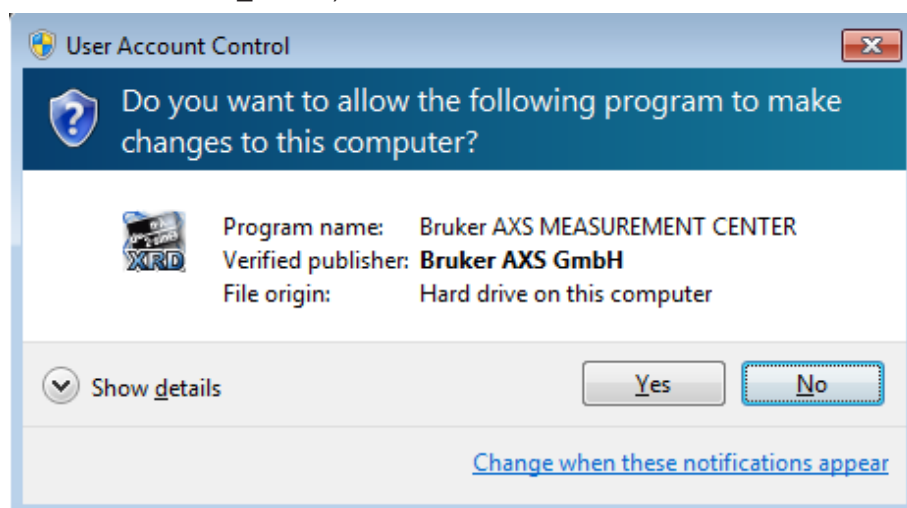


Figure 2.1: BRUKERMC.exe file

- Before the actual setup begins, a search is first conducted for up-to-date **Microsoft .NET** runtime files and then for a **PostgreSQL** database, which are required for Bruker AXS MEASUREMENT CENTER operation.
2. If these software components are found, you can omit Steps 3 and 4 and pass directly to Step 5. Otherwise perform Steps 3 and/or 4 as required.

3 Installing Up-to-date Microsoft .NET Files (if needed) - Step 3

► If **Microsoft.NET run-time** files are not found, or if such files are found but are out of date, the dialog box **Technology Required** appears.

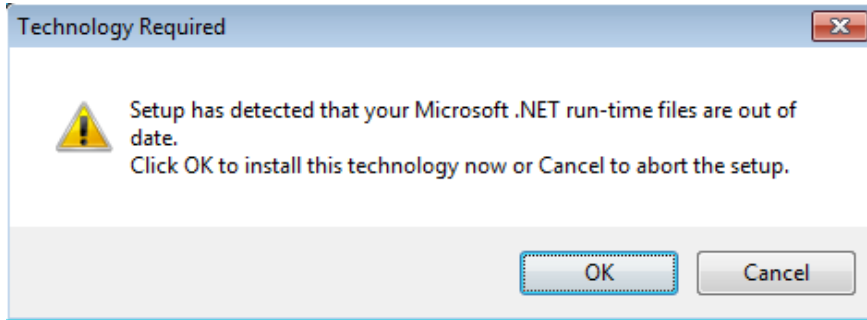


Figure 3.1: Dialog box **Technology Required**

1. Click on **OK** to install up-to-date **Microsoft.NET run-time** files, which are included in the setup package, or **Cancel** to abort the setup.

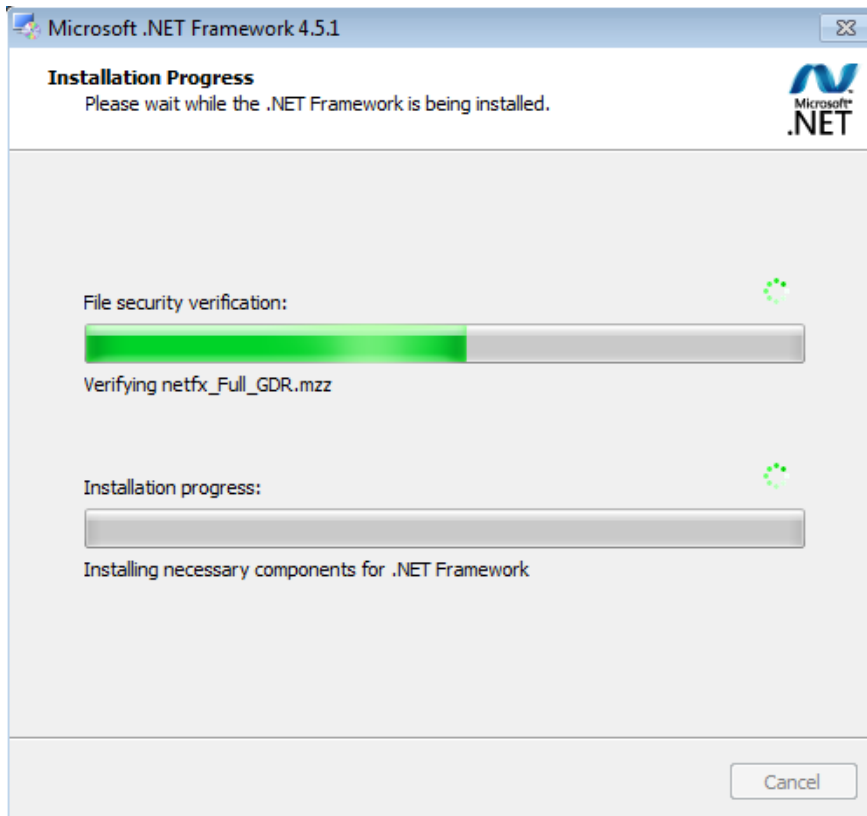


Figure 3.2: Dialog box showing progress of **Microsoft.NET** installation

⇒ After configuration of the **Microsoft.NET** components has been completed, a search is conducted for a **PostgreSQL** database.

4 Installing a PostgreSQL Database (if needed) - Step 4

- ▶ If a **PostgreSQL** database is not found, the dialog box **PostgreSQL Installation** appears.

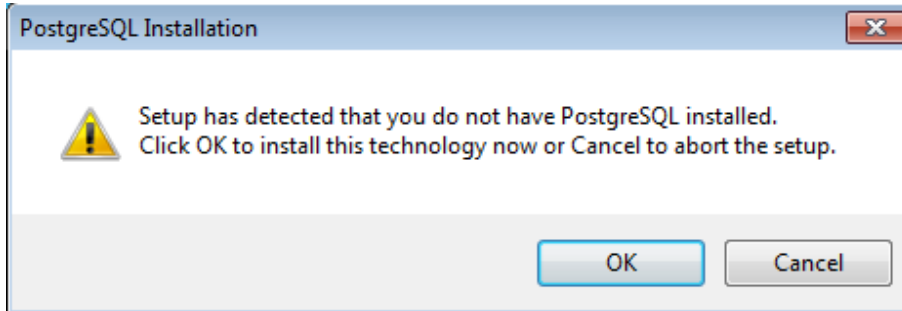


Figure 4.1: Dialog box **PostgreSQL Installation**

1. Click on **OK** in this dialog box to install the **PostgreSQL** database, which is included in the setup package, or click on **Cancel** to abort the setup.
 - ▶ If you click on **OK**, a dialog box appears showing the progress of the installation.

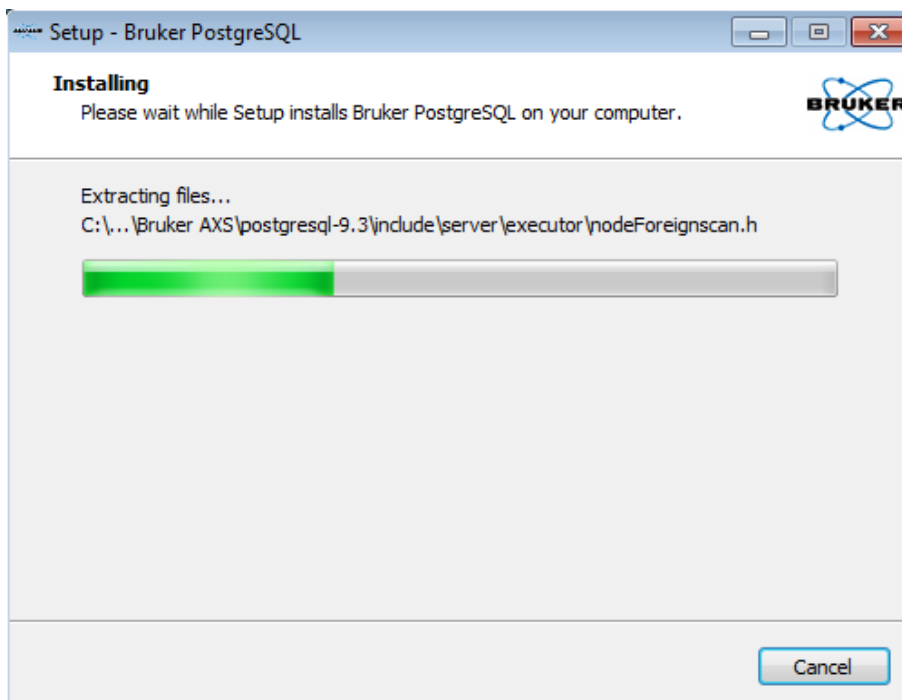


Figure 4.2: Dialog box showing progress of **PostgreSQL** database installation

- ⇒ When the installation of **PostgreSQL** database has been completed, setup of the Bruker AXS MEASUREMENT CENTER, properly speaking, begins.

5 Performing the Setup - Step 5

1. Click on **Next** in the **Setup welcome** dialog box to proceed with the setup.

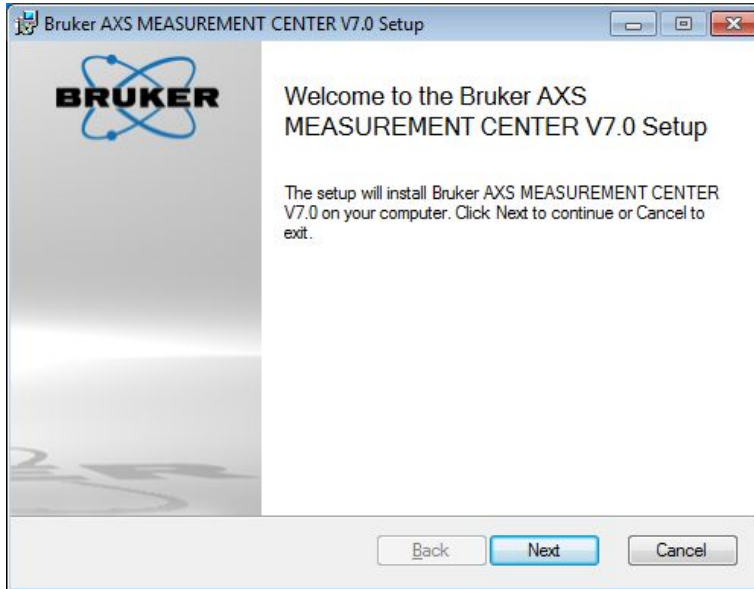


Figure 5.1: Setup welcome dialog box

2. In the next dialog, select the **Product Line** and the **Instrument** type for which the software will be installed

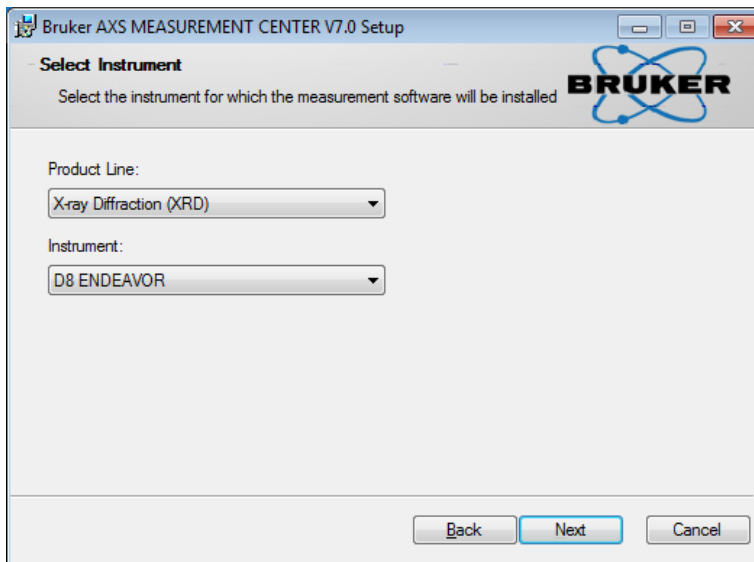


Figure 5.2: Select the instrument

3. In the next dialog box select **Typical** or **Custom**:

- Select **Typical** to proceed with a default installation.
- Select **Custom** to install a remote database, or define another installation path.

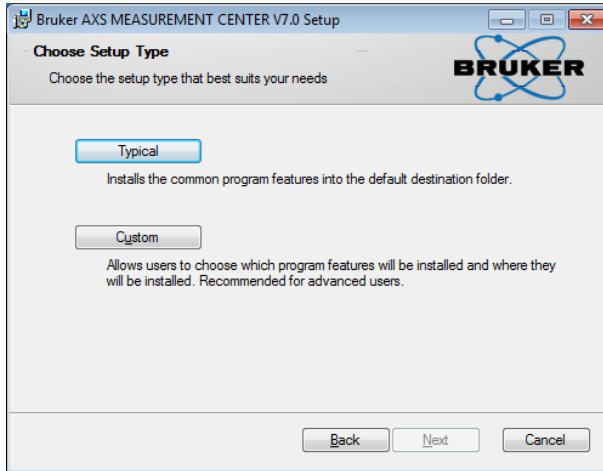
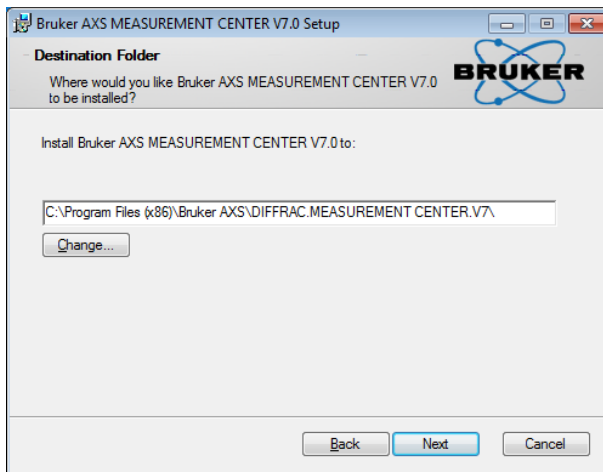


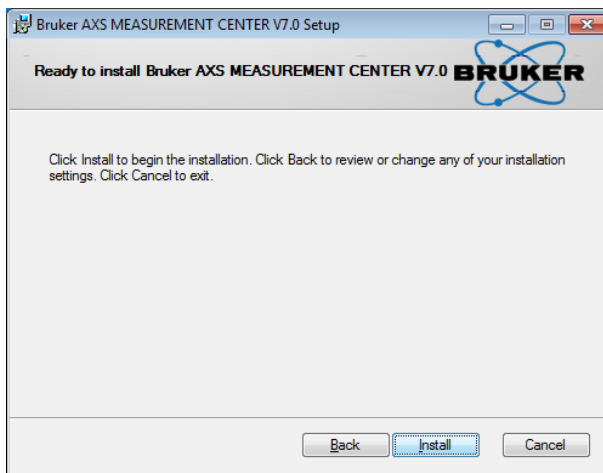
Figure 5.3: Select the installation type

5.1 Typical Installation Settings

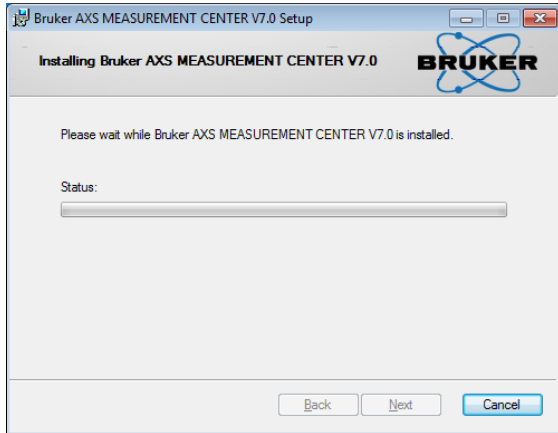
1. Click **Next** to confirm the suggested installation path.



2. Click **Install** to start the installation.



⇒ A dialog box then appears containing a bar showing the progress of the installation.



5.2 Customer Installation Settings

- Selecting **Custom** leads to optional installation settings:

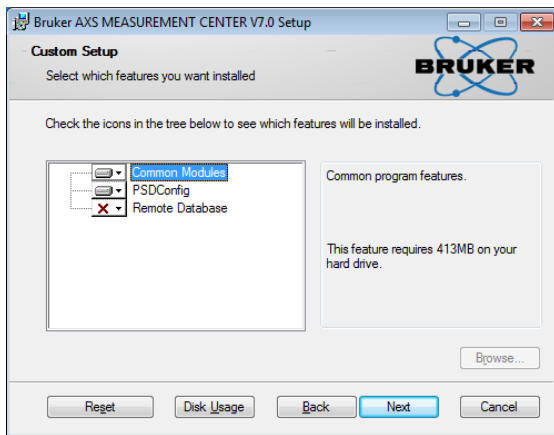


Figure 5.4: Installation settings

Remote Database

This allows the installation of a database on an external PC / server. The PostgreSQL database settings are modified by the installer to allow access from external PC's.

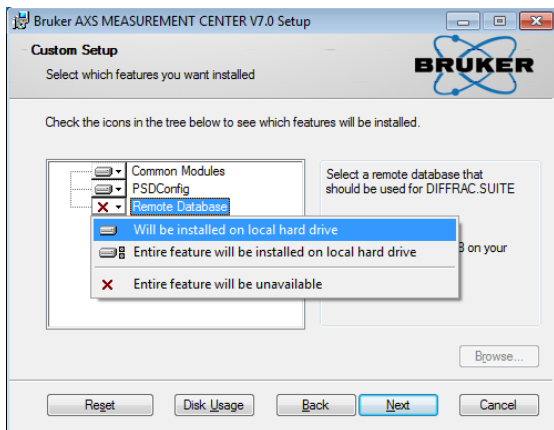
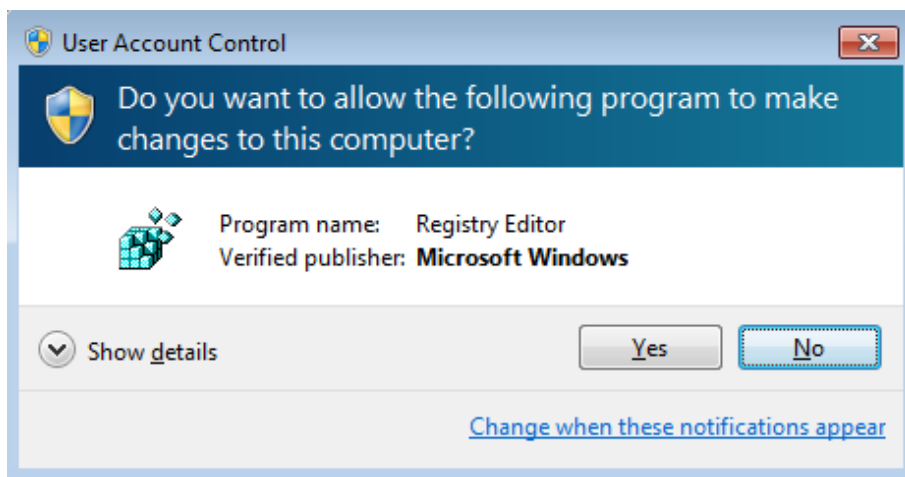


Figure 5.5: Custom Setup dialog box

1. Select the feature in the dialog and press **Next**.
2. Follow the procedure through the dialogs.
 - At the end, a small executable shows up, patching the database settings for outside access.
 - On the installation CD in the directory **\Database** is a registry key file:
BrukerPostgreSQLFirewallSettings.reg
3. Double click this file:



4. Select **Yes** in order to add the settings into the registry.
 - The firewall of the PC is modified to allow database access from external PC's.
5. Click on **Next** in this dialog box to begin the installation.
6. Follow the procedure through the dialogs as described above in [Typical Installation Settings \[▶ 5\]](#).

6 Installing / Upgrading the Database - Step 6

Before you can begin working with the Bruker AXS MEASUREMENT CENTER, the setup program installs or upgrades the database. The backup file (which has the extension **.backup**) has been copied onto your hard drive from the Bruker AXS MEASUREMENT CENTER installation CD.

Database restoration is performed using **Database Maintenance**, which is included in the MEASUREMENT CENTER package.

Using the setup program, **Database Maintenance** is called automatically. If you start **Database Maintenance** manually, please refer the *MEASUREMENT CENTER User Manual*.

If a database already exists, **Database Maintenance** compares the entire database content against the latest version delivered with the MEASUREMENT CENTER installation CD. It creates a backup of you existing database and the process starts.

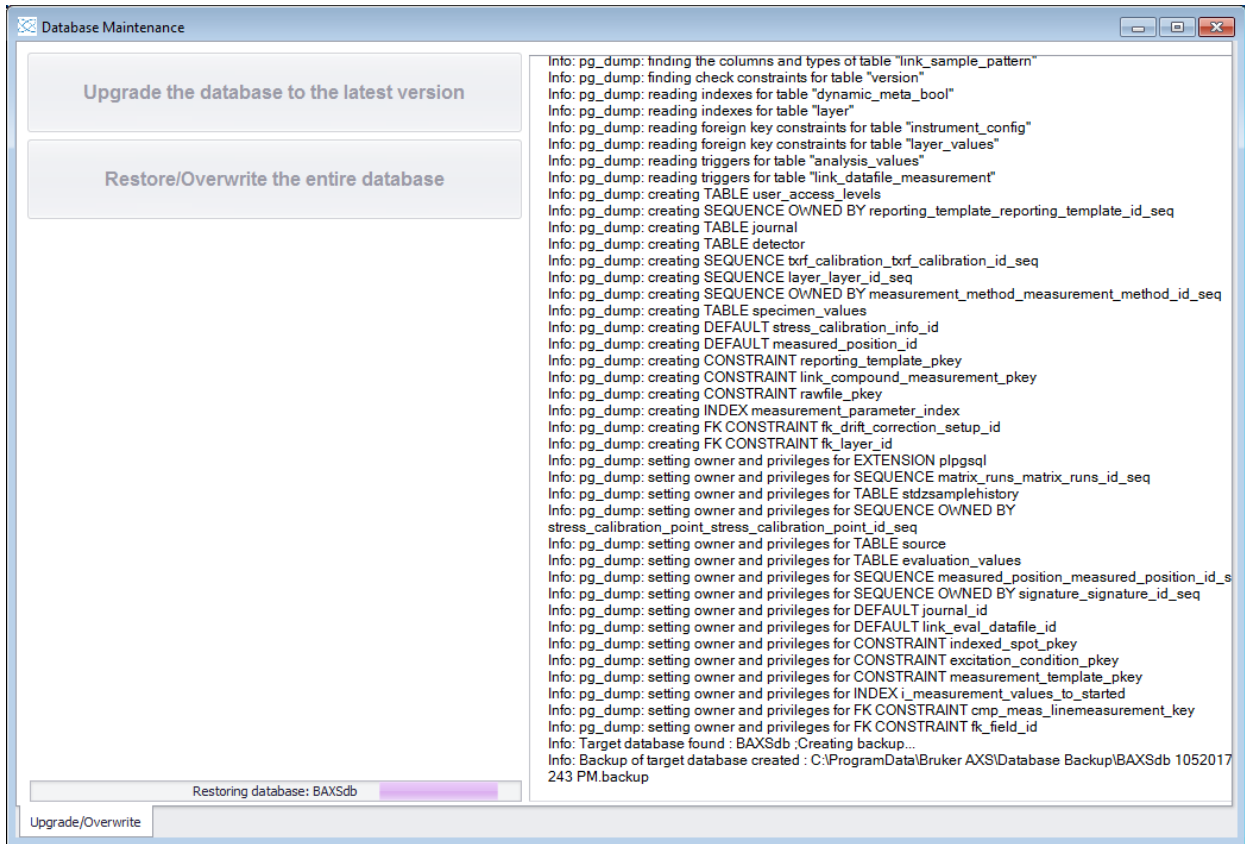


Figure 6.1: Upgrade process is running

- After a while the upgrade process finishes, and a dialog box appears informing you that the installation has been completed.

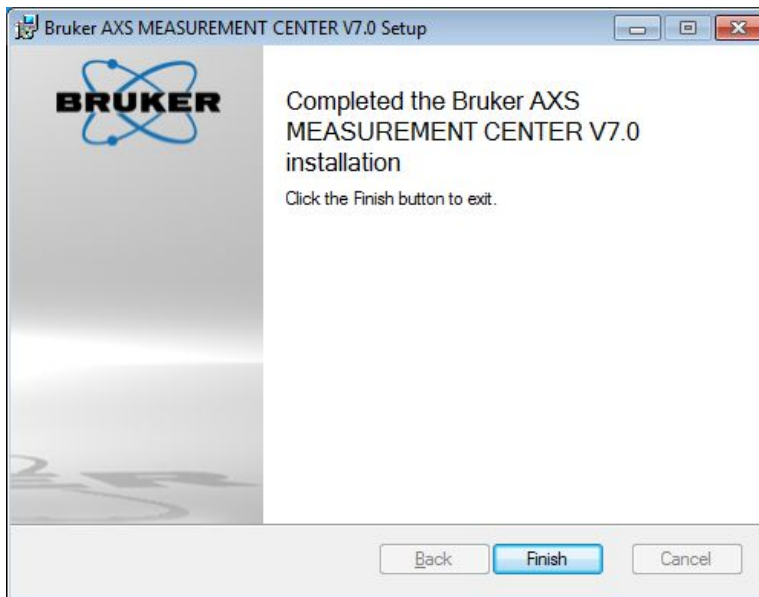


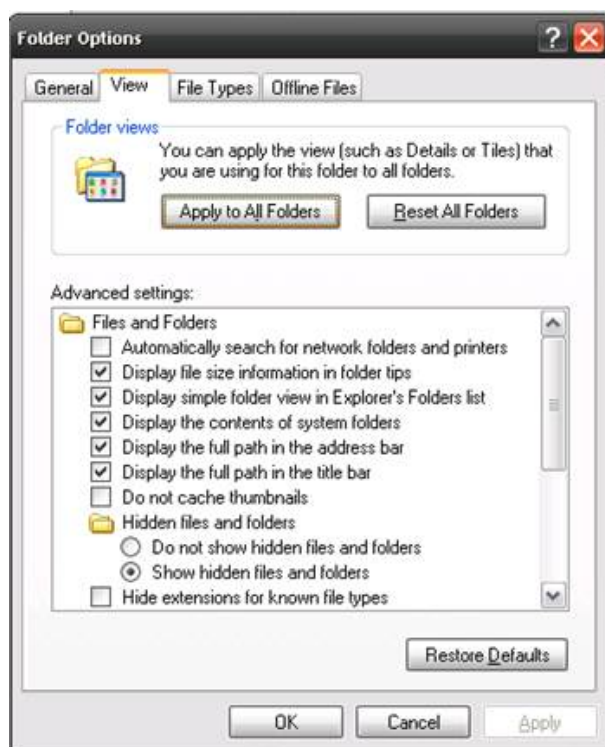
Figure 6.2: Dialog informing the user that installation was successful

1. Click on **Finish** in this dialog box to exit the setup program.
- ⇒ You can now start the various components of the Bruker AXS MEASUREMENT CENTER.

7 Importing the latest configuration templates (Snippets) - Step 7

The configuration templates (called snippets) are changing from time to time, if the underlying hardware changes.

- To avoid changing the installation program every time, there is a additional installer called snippets installer.
- Before starting the snippets installer, the folder with the legacy templates shall be deleted for security reasons.
 - **c:\Documents and Settings\All Users\Application Data\Bruker AXS\Instrument Configurations** and
 - **c:\Program Files\Bruker AXS\DIFFRAC.V2\ConfigDB**
- The path **c:\Document and Settings\All Users\...** is probably not visible, since it may contain partially hidden folders. To unhide hidden folders, see the picture below:



- After the folders are deleted, the snippets installer must be started.
 - Start for the D8: **i:\Informationen Produktion\Prüfungen\D8 Advance A25-X1\Messsoftware\DIFFRAC.CFGTMPL.exe**
 - Start for the D2: **i:\Informationen Produktion\Prüfungen\D2 Phaser A26-X1\Messsoftware\DIFFRAC.CFGTMPL.exe**
- After doing so, the Bruker AXS MEASUREMENT CENTER software is ready to use.

8 Database Server Installation

The following chapter describes how to set up an external database server.

PostgreSQL server installation

In case the software should run with a remote database, you have to install the **PostgreSQL** database server at the remote server. To do so, please open a command line and call the installer with argument / NETWORK so that the database will be installed with a configuration that makes it accessible for software running on other PC. After the installation, use **Database Maintenance** to install a valid database backup file.

If the database is already installed on a PC and you want to make it accessible, you have to modify the following two files using notepad:

- **c:\Users\All Users\Bruker AXS\data-8.3\pg_hba.conf**

1. Search for line:

```
host BAXSdb all 127.0.0.1/32 trust
```

2. and change 127.0.0.1/32 to 0.0.0.0/0:

```
host BAXSdb all 0.0.0.0/0 trust
```

- **c:\Users\All Users\Bruker AXS\data-8.3\postgresql.conf**

1. Search for:

```
#listen_addresses = 'localhost'
```

2. and change to:

```
listen_addresses = '*'
```

3. restart either the **Bruker Postgre service** or the PC so that the changes are applied.

Firewall settings

If you have a Firewall installed to the database server (e. g. Windows Firewall), please make sure that TCP/IP port 5432 is accessible from outside the PC.

The easiest way to do this is to

1. take the registry file **BrukerPostgreSQLFirewallSettings.reg** from the folder **\Database** of the Installation CD.

2. Double click this file with administrator rights.

- It will automatically add the settings into the Windows firewall. This settings work for Windows 7, 8, 10.

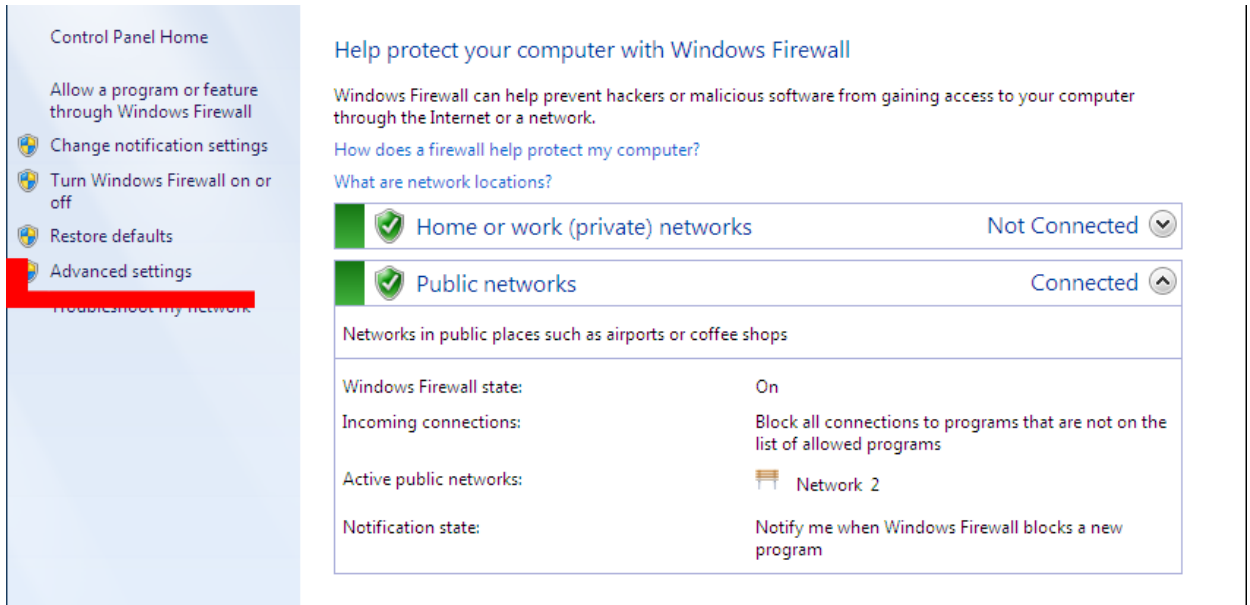
If you have trouble adding the settings into the database, please follow the manual procedure.

To open port 5432 at the Windows 7 Firewall,

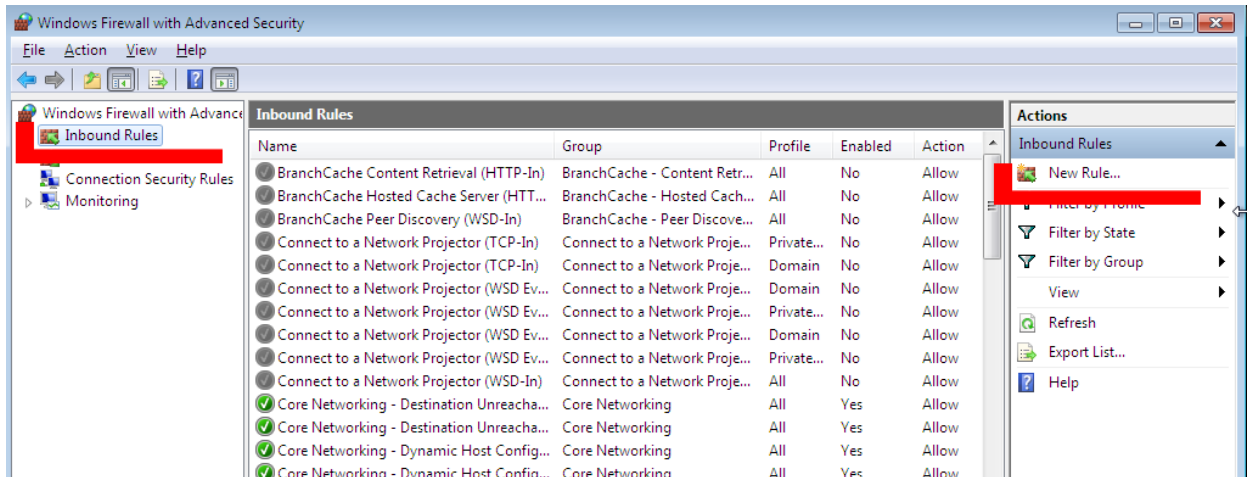
1. go to the **Control** panel and

2. open the **Windows Firewall** settings.

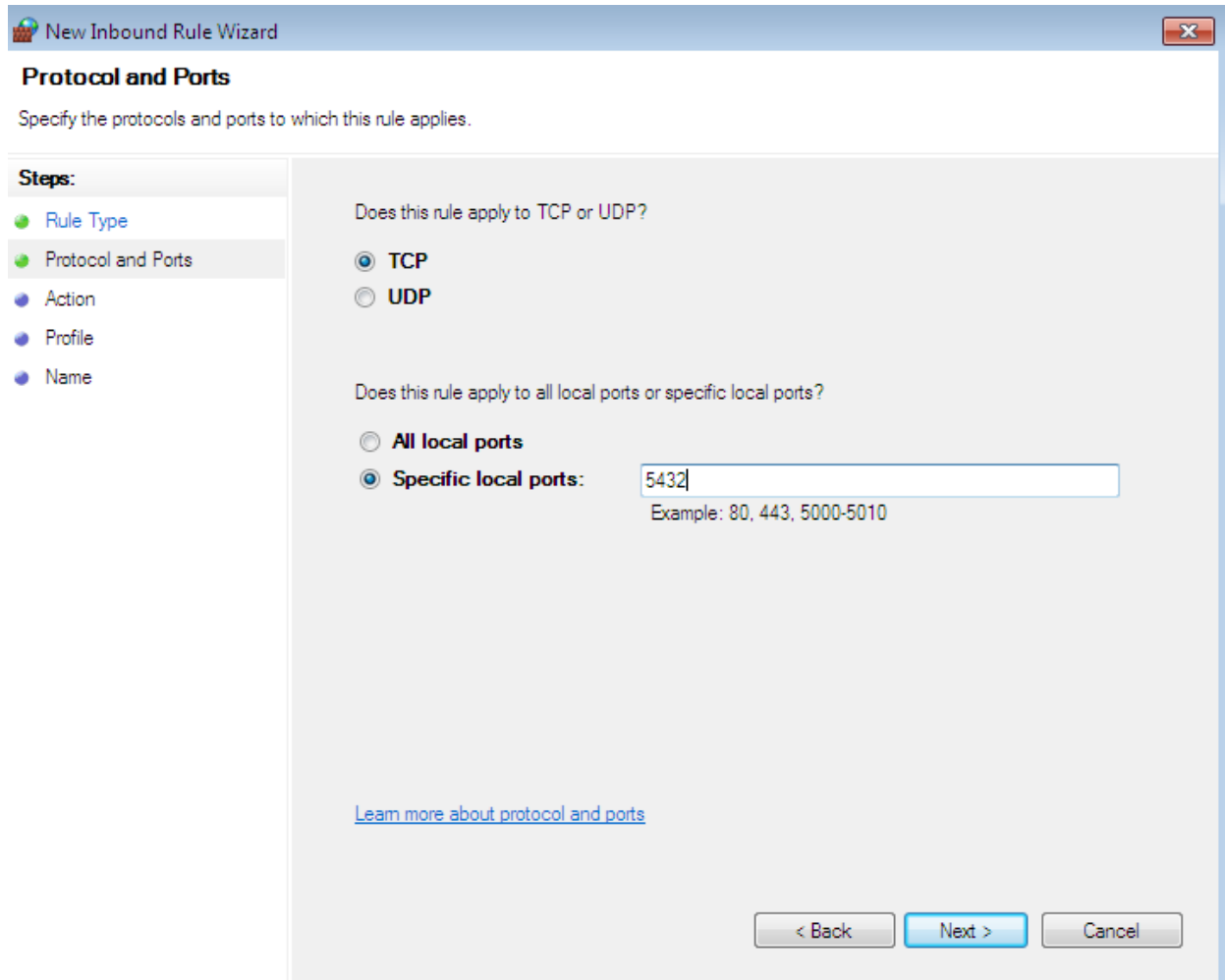
3. Click on **Advanced Settings**



4. Select **Inbound Rules** on the menu tree and **Action | New Rule...**



5. Select **Rule Type Port**, apply for **TCP** and specify port **5432**:



6. Select **Action | Allow the connection**, apply it for all profiles and save the rule with a name, e. G. Bruker-Postgre.



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