



WORLD  
PRECISION  
INSTRUMENTS

## UPGRADE INSTALLATION INSTRUCTIONS

# REMS AutoSampler

*Automated TEER Measurement  
(version 6.02)*

Serial No. \_\_\_\_\_

[www.wpiinc.com](http://www.wpiinc.com)

030719



## UPGRADING FROM REMS 6.01 TO REMS 6.02

1. Login as a REMS user with administrator privileges.
2. Uninstall NI serial 4.0. This also removes the existing **REMS** program. If this is not done the following warning appears.

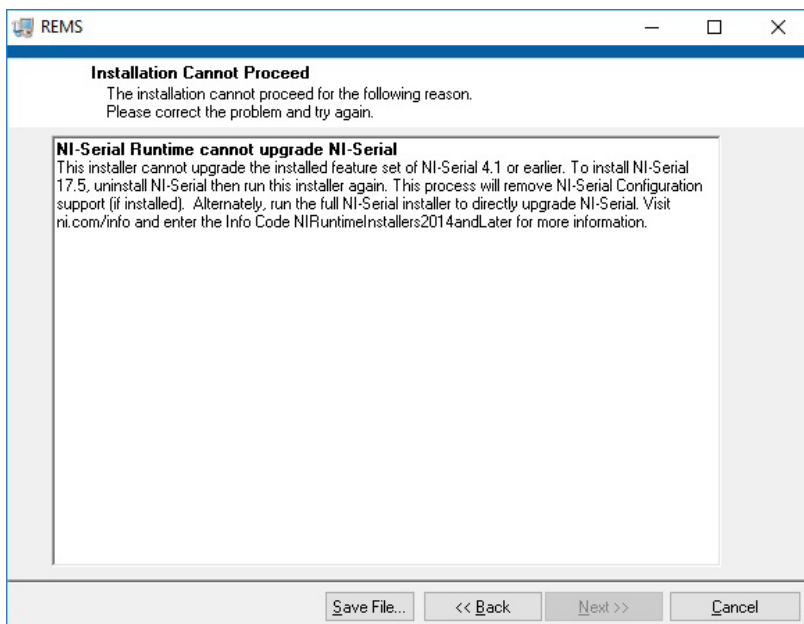


Fig. 1—A warning appears if you fail to uninstall NI serial 4.0 prior to installing the new REMS version.

**NOTE:** This uninstall does not affect any prior **REMS** data or plate configuration files. However, it is best to copy the REMS folder (C:\user\REMS\documents\REMS) to your desktop.

To uninstall the NI software, open the National Instruments Software window. Highlight **NI-Serial 4.0** in the Products tab and click on the **X** button to delete the software. The Dependent Products Detail screen appears. Click the **Remove All** button.

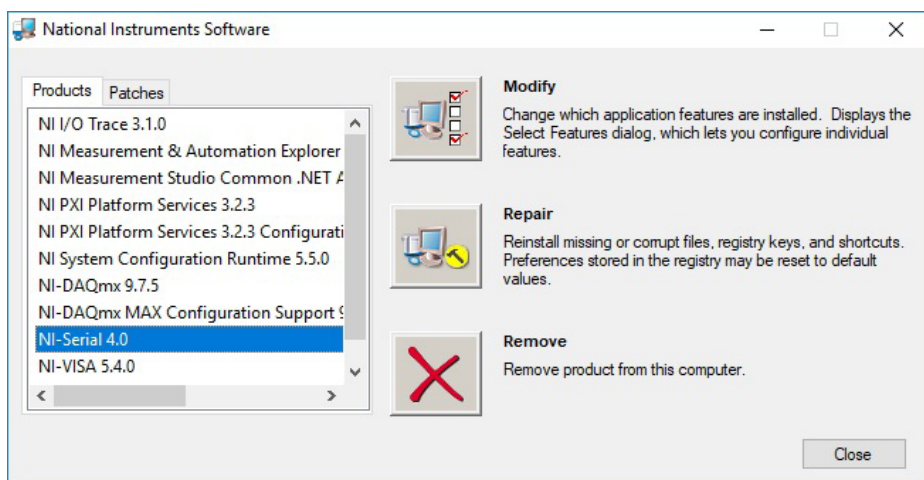


Fig. 2—Choose the NI-Serial 4.0 on the National Instruments Software screen and click the X button.

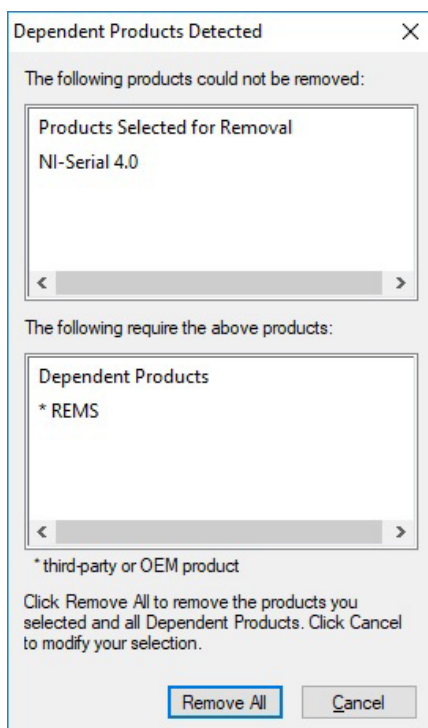


Fig. 3—The Dependent Products Detected screen appears.

# REMS UPGRADE INSTALLATION INSTRUCTIONS

3. Reboot the PC.
4. Install the new REMS software. The REMS window appears showing the destination directory where the software will be installed. Click the **Next** button.

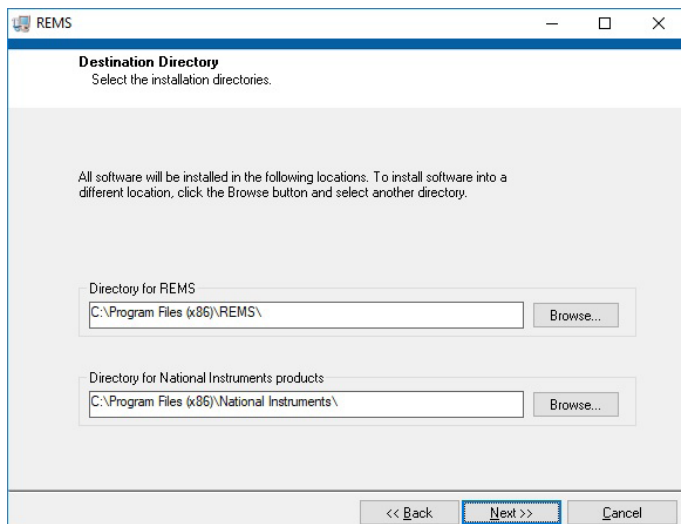


Fig. 4—The REMS install screen show where the REMS software will be installed.

5. Important information about your system appears on the REMS install screen. Click the **Next** button.

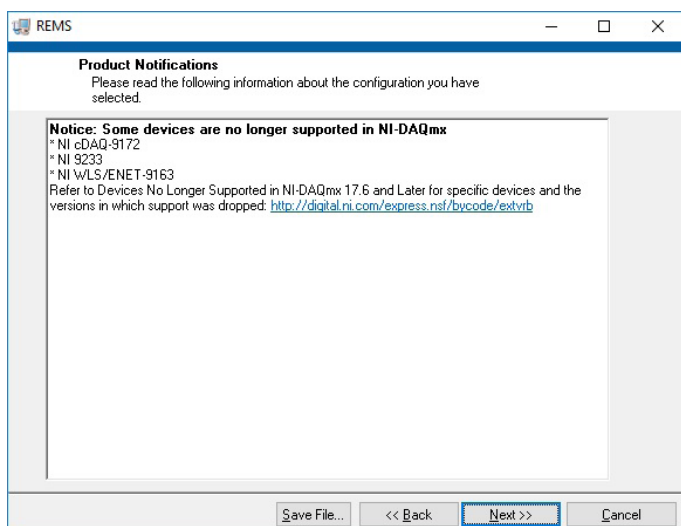


Fig. 5—The configuration of your system appears on the REMS install screen.

6. The National Instrument License Agreement appears. After reading it, click the acceptance radio button and press the **Next** button.

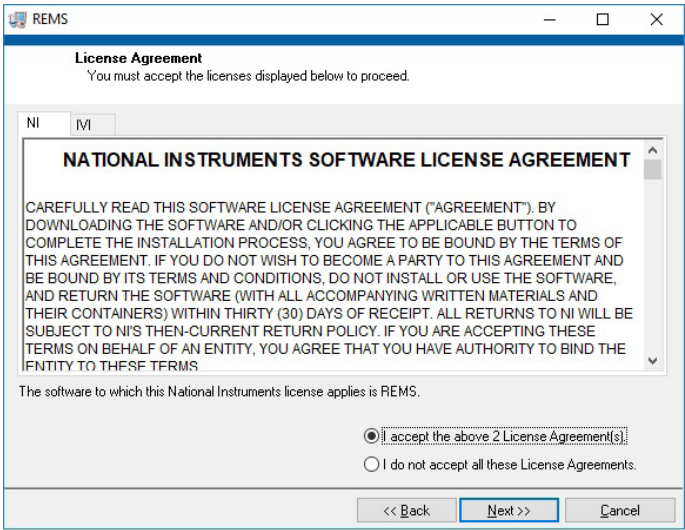


Fig. 6—The National Instruments License Agreement appears on the REMS install screen.

7. Review the final installation summary and click the **Next** button.

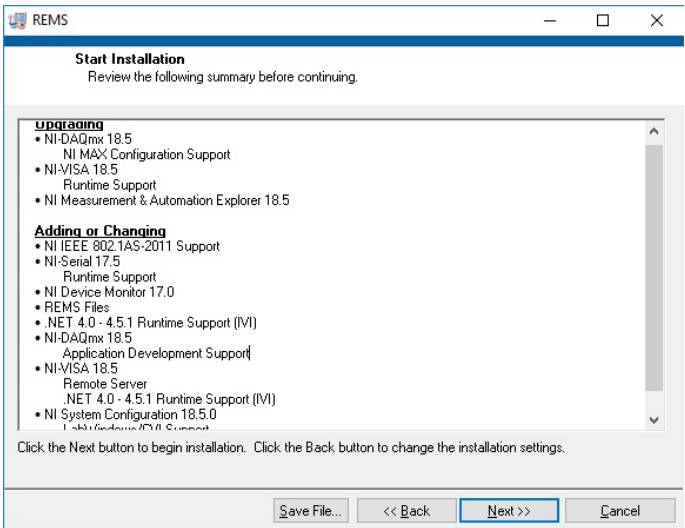


Fig. 7—An installation summary appears on the install screen.

# REMS UPGRADE INSTALLATION INSTRUCTIONS

8. Reboot the PC. After rebooting, launch NI-Max. Then do the following:
  - Select **Devices and Interfaces**.
  - Click on the active NI PCI 6220 board and verify that the NI PCI 6220 is named DEV1.
  - If you see DEV2, then delete the inactive DEV1. Then rename DEV2 to DEV1.
  - Save the configuration by clicking the **Save** (disk) button.
  - Push the **Reset** button.
  - Perform a self-test by clicking the **Self-Test** button.
  - Calibrate the software by pressing the **Self-Calibrate** button.
  - Close the program.

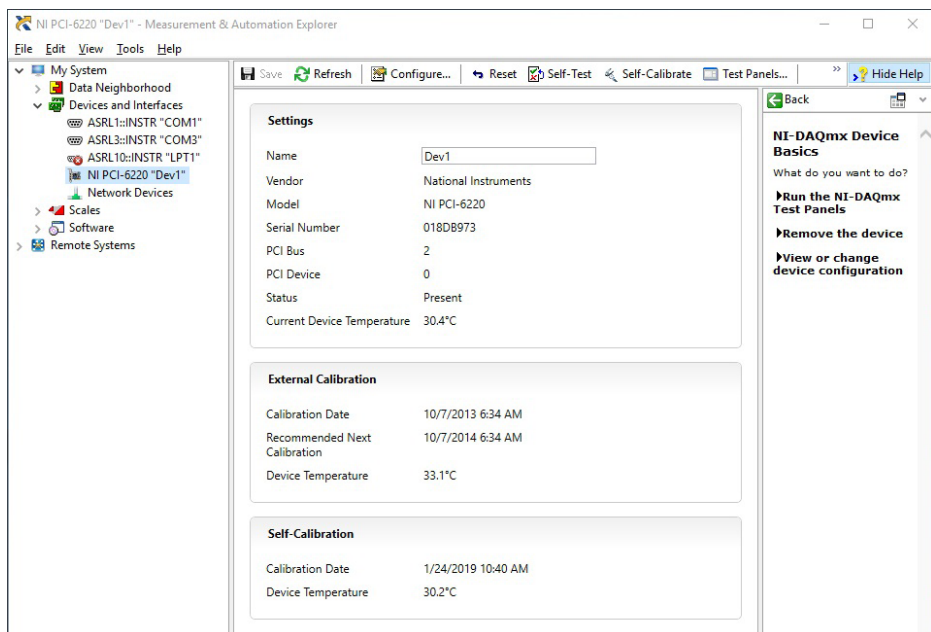


Fig. 8—The NI Max interface.

9. As an administrator, copy the files in the plate configuration folder located at C:\user\REMS\documents\REMS\Plate\_Configurations\ to C:\Users\Public\Documents\REMS\Plate\_Configurations. The installation is now complete.

# REMS 6.02 Operations

When you open the **REMS** program, a new user gets a copy of all three folders from C:\Users\Public\Documents\REMS\:

- Plate\_Background
- Plate\_Configurations
- Plate\_Data

The following tab screens are what should be seen if the **REMS** program is launched as the **REMS** user.

REMS AutoSampler

Take Data/Well Sequence | Data Collection | Communication | Plate Files | Data Storage | About

Take Data

Start | Pause | Home | Stabilize | Rinse | 1 | Reset

Well Number  
1 | Raise | Settings

Well Sequence  
Sample Pattern  
Sequential Rows | Next Well Number  
1 | Increment  
☐

D	C	B	A	
4	3	2	1	1
8	7	6	5	2
12	11	10	9	3
16	15	14	13	4
20	19	18	17	5
24	23	22	21	6

Background Resistance File Name (\*.bkg)  
generic\_24

Data File Name (\*.txt)

Plate File  
generic\_24

Display Data  
Well Sequence

Fig. 9—(Left) Tab 1 (Take Data) lets you change the setting for Display Data for the desired reading.

REMS AutoSampler

Take Data/Well Sequence | Data Collection | Communication | Plate Files | Data Storage | About

Sampling Control  
Automatic

TEER Range  
Automatic

After Scan  
Home Position

Resistance Type  
Total Resistance

Vertical Position (mm)  
1.0

Rinse Well 1 Time (seconds)  
1.00

Rinse Well 2 Time (seconds)  
1.00

Well Measurement Time (seconds)  
1.00

Rinse Between Wells  
Off

D	C	B	A	
4	3	2	1	1
8	7	6	5	2
12	11	10	9	3
16	15	14	13	4
20	19	18	17	5
24	23	22	21	6

Background Resistance File Name (\*.bkg)

Data File Name (\*.txt)

Plate File  
generic\_24

Display Data  
Well Sequence

Fig. 10—(Right) Tab 2 (Data Collection) let you change the vertical position, rinse time and read time to the desired values.



# REMS UPGRADE INSTALLATION INSTRUCTIONS

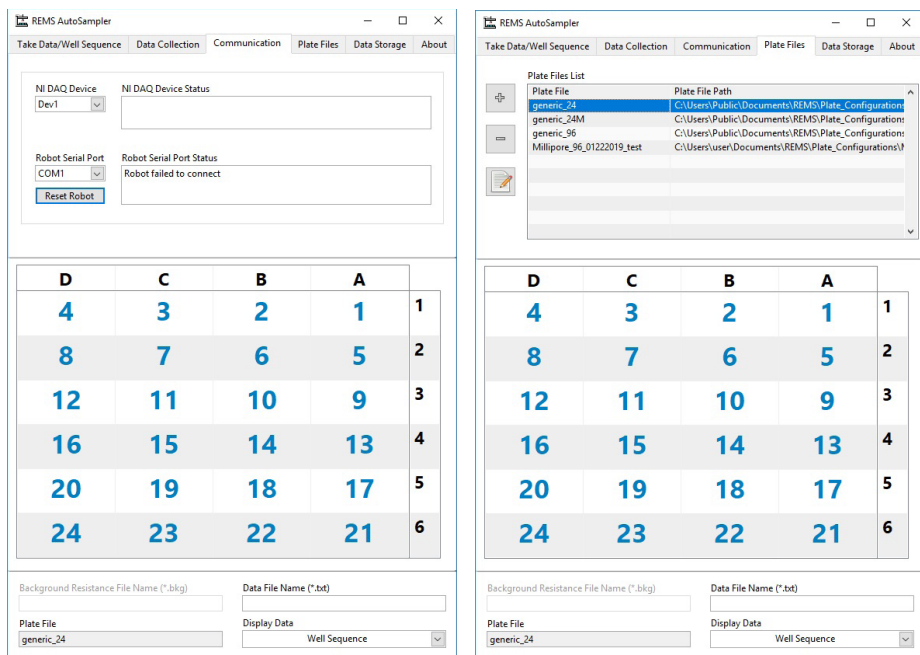


Fig. 11—(Left) Tab 3 (Communications) shows the setting for the NI board is DEV1.  
 Fig. 12—(Right) Tab 4 (Plate Files) shows that the default pointer for the probe positioning files is set to the public folder. You may point to a copy in your [user]\documents folder, but it is advised to use a central location under public. If there are any changes to the main XYZ file, then all users access that change.

REMS AutoSampler

Take Data/Well Sequence | Data Collection | Communication | Plate Files | **Data Storage** | About

Open Data | Save Data | Auto Save ☐ | Auto Numbering ☐ | # 1

Data Folder  
C:\Users\user\Documents\REMS\Plate\_Data

Background Resistance Folder  
C:\Users\Public\Documents\REMS\Plate\_Background

Notes

D	C	B	A	
4	3	2	1	1
8	7	6	5	2
12	11	10	9	3
16	15	14	13	4
20	19	18	17	5
24	23	22	21	6

Background Resistance File Name (\*.bkg)

Data File Name (\*.txt)

Plate File: generic\_24

Display Data: Well Sequence

Fig. 13—Tab 5 (Data Storage) shows the default storage locations. If a user selects the folder icon, he is redirected to his documents\REMS folder instead of the location displayed. It is advised to enter a file name for both the background and data file and save the dummy file name. To enter a name for the background file, click on the entry window (lower screen on the left) to allow text to be entered and type a file name. Then select the Save Background button (in the upper screen on the left). Repeat this procedure for the dummy data file name.

## WARRANTY

WPI (World Precision Instruments) warrants to the original purchaser that this equipment, including its components and parts, shall be free from defects in material and workmanship for a period of one year\* from the date of receipt. WPI's obligation under this warranty shall be limited to repair or replacement, at WPI's option, of the equipment or defective components or parts upon receipt thereof f.o.b. WPI, Sarasota, Florida U.S.A. Return of a repaired instrument shall be f.o.b. Sarasota.

The above warranty is contingent upon normal usage and does not cover products which have been modified without WPI's approval or which have been subjected to unusual physical or electrical stress or on which the original identification marks have been removed or altered. The above warranty will not apply if adjustment, repair or parts replacement is required because of accident, neglect, misuse, failure of electric power, air conditioning, humidity control, or causes other than normal and ordinary usage.

To the extent that any of its equipment is furnished by a manufacturer other than WPI, the foregoing warranty shall be applicable only to the extent of the warranty furnished by such other manufacturer. This warranty will not apply to appearance terms, such as knobs, handles, dials or the like.

WPI makes no warranty of any kind, express or implied or statutory, including without limitation any warranties of merchantability and/or fitness for a particular purpose. WPI shall not be liable for any damages, whether direct, indirect, special or consequential arising from a failure of this product to operate in the manner desired by the user. WPI shall not be liable for any damage to data or property that may be caused directly or indirectly by use of this product.

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Inspect all shipments upon receipt. Missing cartons or obvious damage to cartons should be noted on the delivery receipt before signing. Concealed loss or damage should be reported at once to the carrier and an inspection requested. All claims for shortage or damage must be made within ten (10) days after receipt of shipment. Claims for lost shipments must be made within thirty (30) days of receipt of invoice or other notification of shipment. Please save damaged or pilfered cartons until claim is settled. In some instances, photographic documentation may be required. Some items are time-sensitive; WPI assumes no extended warranty or any liability for use beyond the date specified on the container

Do not return any goods to us without obtaining prior approval and instructions from our Returns Department. Goods returned (unauthorized) by collect freight may be refused. Goods accepted for restocking will be exchanged or credited to your WPI account. Goods returned which were ordered by customers in error are subject to a 25% restocking charge. Equipment which was built as a special order cannot be returned.

## Repairs

Contact our Customer Service Department for assistance in the repair of apparatus. Do not return goods until instructions have been received. Returned items must be securely packed to prevent further damage in transit. The Customer is responsible for paying shipping expenses, including adequate insurance on all items returned for repairs. Identification of the item(s) by model number, name, as well as complete description of the difficulties experienced should be written on the repair purchase order and on a tag attached to the item.

*\* Electrodes, batteries and other consumable parts are warranted for 30 days only from the date on which the customer receives these items.*

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