

NOVA 1.11

Release Notes



NOVA 1.11

DEDICATED TO RESEARCH

1.11

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AUTOLAB

1 – NOVA 1.11.0 Release Notes

Thank you for installing this update of NOVA. These notes provide an overview of the new features introduced in NOVA 1.11.

The following improvements have been added to NOVA:

- Consolidation of the features introduced with the minor updates of NOVA 1.10 (NOVA 1.10.2 – NOVA 1.10.5)
- Support for the new Multi Autolab/M204
- Support for the new Autolab RRDE
- New version of the NOVA only driver

1.1 – Consolidation of the features introduced with the minor updates of NOVA 1.10

NOVA 1.11 consolidates the changes introduced with the NOVA 1.10 minor releases. The details of these changes can be found in the Release Notes previous versions, available from the Help menu.

1.2 – Support for the new Multi Autolab/M204

This version of NOVA provides support for the new Multi Autolab with M204 (see Figure 1).



Figure 1 – The Multi Autolab with M204

This new compact instrument can be used stand alone or in combination with one of the following modules:

- M204 – Potentiostat/Galvanostat module
- FRA32M – Electrochemical impedance analyzer module
- BA – Dual mode bipotentiostat module
- EQCM – Electrochemical quartz crystal microbalance module
- MUX – Multiplexer module
- pX1000 – pH and temperature measurement module

The Multi Autolab with M204 can be selected from the hardware setup in NOVA (see Figure 2).

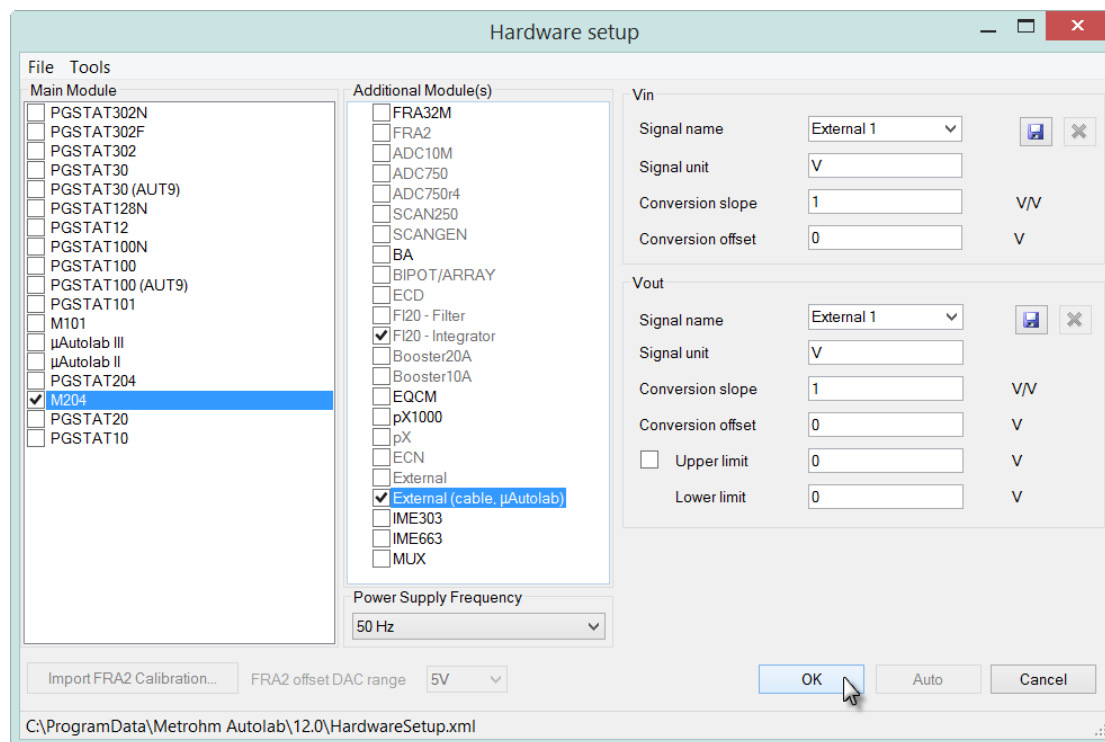


Figure 2 – The M204 module is available in the Hardware setup



Note

The Multi Autolab cabinet for M204 modules is identified by a MAC9XXXX serial number.

1.3 – Support for the new Autolab RRDE

This version of NOVA provides support for the new Autolab RRDE, rotating ring-disc electrode. The control of the Autolab RRDE is achieved using the same controls of for the Autolab RDE. The following commands have been renamed:

- Control Autolab RDE renamed to Control Autolab R(R)DE
- Switch Autolab RDE off renamed to Switch Autolab R(R)DE off

Furthermore, the Hardware setup screen has been adjusted and it provides the R(R)DE control in the External additional module (see Figure 3).

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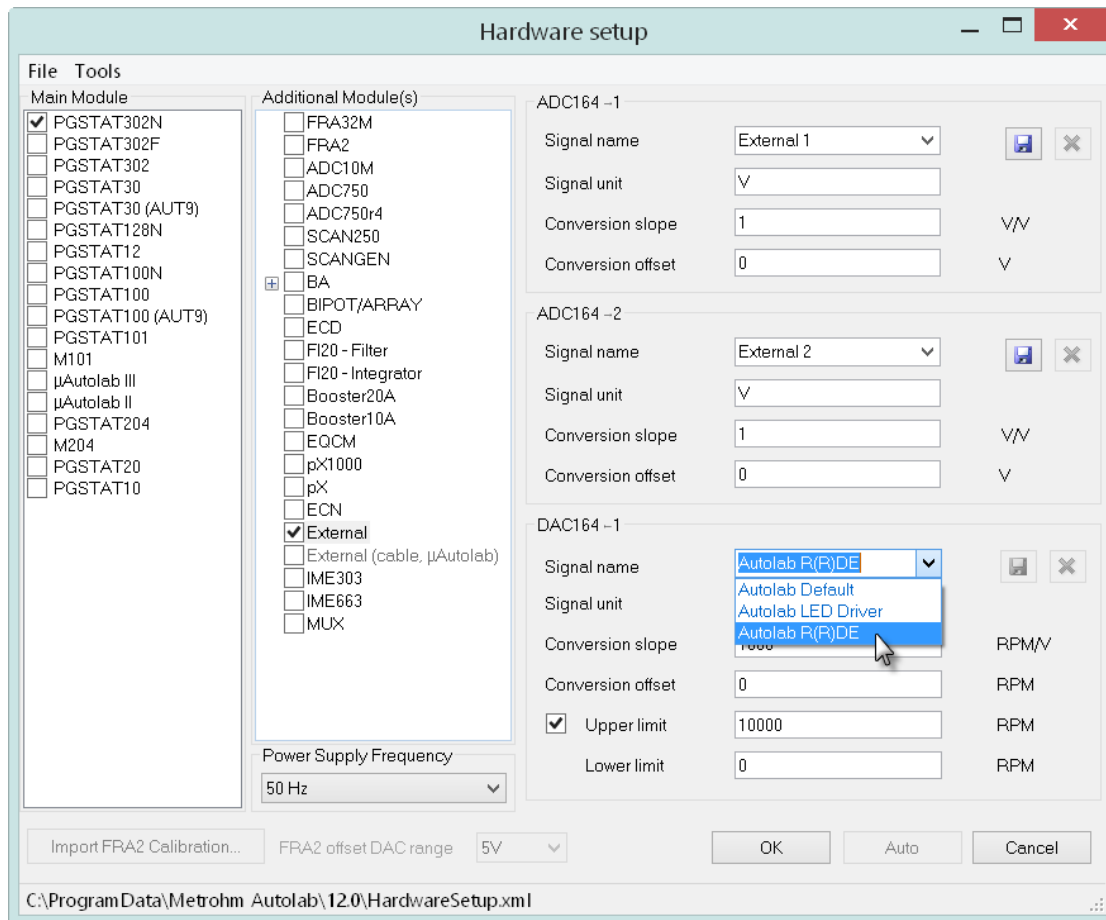


Figure 3 – The Autolab RRDE is supported as R(R)DE in the Hardware setup

1.4 – New version of the NOVA only device driver

The Driver Manager application provides a new version of the NOVA only driver. The driver used can be specified using the Driver Manager 1.11 application (see Figure 4).

Two driver versions are provided by the Driver Manager application:

- **NOVA 1.11 only (recommended setup):** this is the latest driver for the Autolab, allowing up to 127 instruments to be connected to the computer. This driver is compatible with 32 Bit and 64 Bit versions of Windows.



Warning

The NOVA 1.11 only driver cannot be used in Windows XP and Windows Vista.

- **GPES/FRA compatible:** this is an older driver version which can be used in combination with the GPES or FRA software. No further developments are planned for this driver. The maximum number of devices connected to the

same computer is 8. Data transfer is slower than with the NOVA 1.11 only driver. This driver is only compatible with 32 Bit versions of Windows.

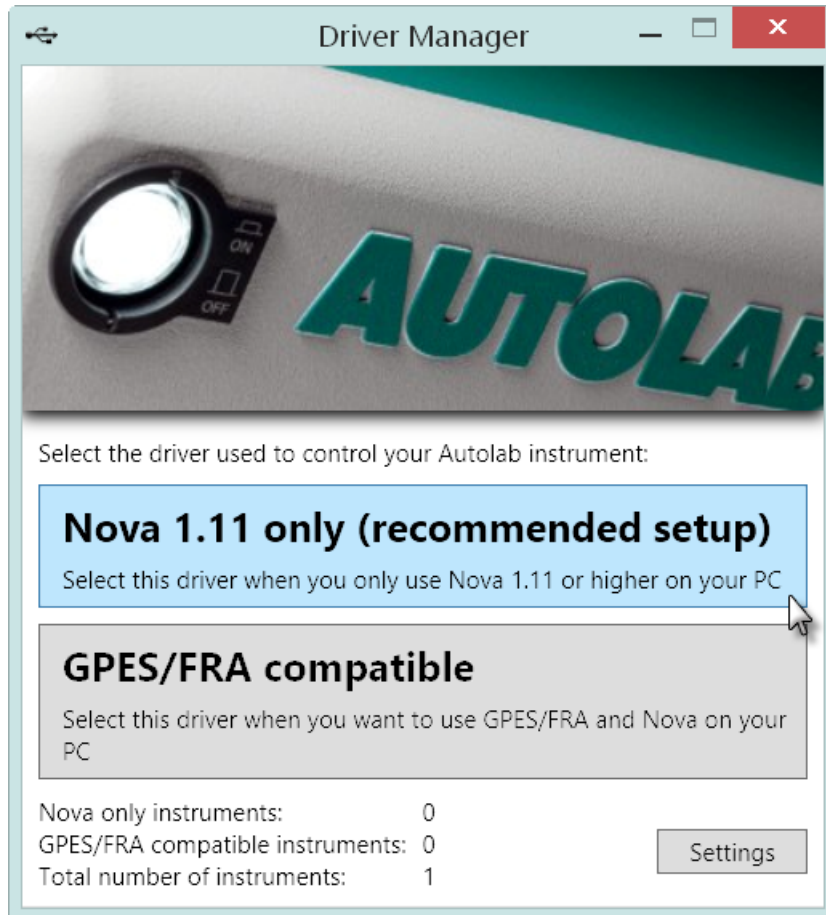


Figure 4 – The Driver manager application can be used to specify the driver used to control the connected instrument(s)

If you are installing NOVA 1.11 on a new computer (no previous versions of NOVA are present on the computer), then there are two possibilities:

1. **For 32 bit operating systems:** the choice between the NOVA only driver and the GPES compatible driver is provided. The Nova 1.11 only driver is the recommended choice. If the same computer will be used to work the GPES and FRA software, the GPES compatible driver can be installed instead.
2. **For 64 bit operating systems:** the Nova 1.11 only driver is the only possible choice.

If you are installing NOVA 1.11 on a computer on which an older version of NOVA is present, it will no longer be possible to connect to the instrument if the Nova 1.11 only driver is installed.

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Warning

The Nova 1.11 only driver will not work with previous versions of NOVA. In order to use previous versions of NOVA, it is necessary to start the Driver Manager application provided with the previous version and select one of the available drivers provided with this previous version (please refer to the Getting Started manual of the previous version of NOVA for more information).

Table 1 provides an overview of the operating system compatibility of the device drivers supplied with NOVA.

Windows Version	NOVA 1.11 only driver	GPES/FRA compatible driver
8 32 bit	✓	✓
8 64 bit	✓	✗
7 32 bit	✓	✓
7 64 bit	✓	✗
Vista 32 bit	✗	✓
Vista 64 bit	✗	✗
XP 32 bit	✗	✓
XP 64 bit	✗	✗

Table 1 – Overview of the compatibility of Windows operating systems

Table 2 provides an overview of the cross-compatibility of the NOVA versions.

NOVA Version	NOVA 1.11 only driver	NOVA only driver (Supplied with versions 1.7 – 1.10)	GPES/FRA compatible driver
1.11	✓	✗	✓
1.10	✗	✓	✓
1.9	✗	✓	✓
1.8	✗	✓	✓
1.7	✗	✓	✓

Table 2 – Overview of cross-compatibility of NOVA versions

2 – NOVA 1.11.1 Addendum

The 1.11.1 NOVA release adds the following improvements:

- Bugfix for Autolab firmware updater in Diagnostics application
- MultiBA instruments hardware configuration

2.1 – Buffix for Autolab firmware updater in Diagnostics application

This new version of NOVA addresses a bug present in the initial release of NOVA 1.11 that prevented instruments from being updated through the Diagnostics application.

2.2 – MultiBA instruments hardware configuration

The hardware configuration of the MultiBA instruments is now automatically adjusted. It is no longer required to specify the MultiBA instrument toggle, as indicated in the MultiBA tutorial, available from the Help menu in NOVA.

3 – NOVA 1.11.2 Addendum

The 1.11.2 NOVA release adds the following improvements:

- Timed repeat
- Wait for Remote inputs

3.1 – Timed repeat

A new Repeat command, **Timed repeat**, has been added to the Control group of commands. This command provide the means to repeat the commands located in the loop a number of times, at user-defined interval times (see Figure 5).

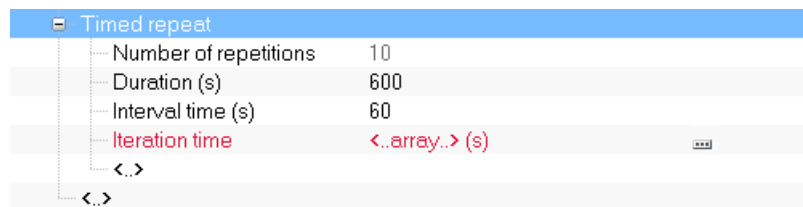


Figure 5 – The Timed repeat command

The Timed repeat command has the following parameters:

- **Number of repetitions:** the number repetitions, determined based on the specified Duration and Interval time parameters.
- **Duration (s):** the duration of the repeat loop, in seconds.
- **Interval time (s):** the interval time between two consecutive repetitions.

Using the default parameters of the command, the Timed repeat will repeat the command located in the command, every 60 seconds, for a duration of 600 seconds, resulting in 10 repetitions.



Note

The Interval time should be an integral fraction of the Duration in order to accurately determine the number of repetitions. A warning is provided when this condition is not met.



Note

The duration of the commands located in the Timed repeat loop should be smaller or equal to the interval time. When this condition is not met, the actual duration will be determined by the duration of the commands and the interval time will no longer be accurate. A warning is provided when this situation is encountered.

3.2 – Wait for Remote inputs

A new command has been added to the Metrohm devices group. This command, called **Wait for Remote inputs**, can be used to force a procedure to wait until a user-defined byte is detected on the eight input pins of a Metrohm 6.2148.010 Remote Box connected by MSB (see Figure 6).

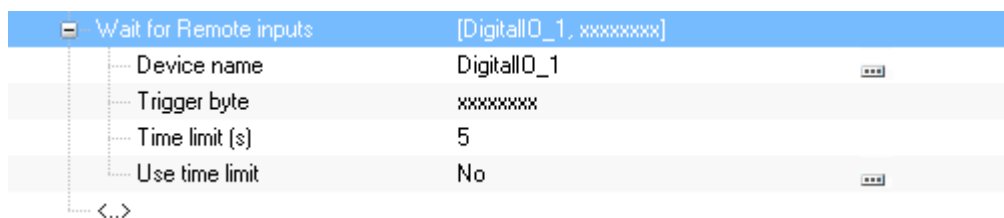


Figure 6 – The details of the Wait for Remote inputs command

This new command works in the same way as the **Wait for DIO** command, available from the Measurement – general group of commands.

The **Wait for Remote inputs** command has the following parameters:

- **Device name:** the name of the device.
- **Trigger byte:** the trigger byte expected by the Wait for Remote inputs command. This trigger byte must be specified as a string of 8 characters, consisting of 1, 0 or X, where 1 corresponds to a High state, 0 corresponds to the Low state and X is used as a wildcard.
- **Time limit (s):** specifies a time limit for the command.
- **Use time limit (yes/no):** specifies if the time limit should be used or not.