

Software Package

The RTC®5 Board is delivered with a software package including drivers and DLL files for Microsoft Windows operating systems. The RTC®5 drivers support the plug and play capability of the RTC®5 and simultaneously drive any number of RTC®5 Boards. RTC®5 DLL files contain the functions which can be called by RTC®5 commands.

- RTC®5 drivers and RTC®5 DLL files included in RTC®5 software packages of version 2013_02_21 and later (with version \geq DLL 535) are designed for 32-bit as well as 64-bit versions of Microsoft Windows 10, 8, 7, Vista, XP SP2, XP SP3. RTC®5 DLL files from these packages do not support Microsoft Windows 2000 and XP \leq SP1.
- RTC®5 drivers and RTC®5 DLL files included in RTC®5 software packages of version 2011_09_29 through 2012_09_05 (with version DLL 528...DLL 535) are designed for Microsoft 32-bit as well as 64-bit versions of Windows 7, Vista, XP SP2, XP SP3. RTC®5 DLL files from these packages do not support Microsoft Windows 2000 and XP \leq SP1.
- RTC®5 drivers and RTC®5 DLL files included in RTC®5 software packages of version 2011_07_27 and earlier (with version \leq DLL 527; they have less functionality) are designed for 32-bit versions of Microsoft Windows 7, Vista, XP and 2000.



Caution!

- The RTC®5 Board does not support power-saving modes, that switch off power to the PCI bus. Accordingly, you must disable standby or sleep modes of the operating system (see also note below).

Notes

- RTC®5 software package version 2013_02_21 and later contain (newer) WDF⁽¹⁾ drivers version 6.1.7600.16385. Earlier packages contain (older) WDM⁽²⁾ drivers of version 1.0.4.0 or 2.0.6.0.
- RTC®5 DLL files version DLL \leq 533 are *not* compatible with the WDF drivers.
- RTC®5 DLL files version DLL \geq 535 are compatible with the WDM drivers.
- In comparison to old WDM drivers, the new WDF driver offers the following new functionality: If `init_rtc5_dll` is called, then the driver prevents automatic activation of standby or sleep modes (continuously until the next system restart). This enables RTC®5 Boards to continue processing lists autonomously even when the initiating program has already terminated. However, standby or sleep modes cannot be prevented if triggered manually or by discharged batteries. Afterward, loaded lists and other settings of the RTC®5 Board are lost. After a wake-up, the board might no longer be correctly addressable. Users themselves must prevent standby or sleep modes prior to the first call of `init_rtc5_dll`.

Windows Drivers

- RTC5DRV.sys, RTC5DRVx64.sys, RTC5DRVx86.sys
RTC®5 driver files
- RTC5DRV.inf
Installation file (setup information)
- RTC5DRV.cat, rtc5drvx64.cat, rtc5drvx86.cat
Security catalog files
- amd64/WdfCoInstaller01009.dll,
x86/WdfCoInstaller01009.dll
Installation assistant help files
- AfterInstallation/ScanlabClassChecker.cmd,
Security installation script with description in
ReadMe_ScanlabClassChecker.pdf

(1) Windows Driver Framework

(2) Windows Driver Model

Installing the Drivers

To install the RTC®5 drivers for Windows 10, 8, 7, Vista, XP SP2, XP SP3, proceed as follows:

- ▶ After the RTC®5 Board has been installed, start the computer.

For Windows 7, Vista, XP SP2 XP SP3:

- ▶ If the "Add Hardware Wizard" does not come up automatically, call it from the Control Panel.
- ▶ In the "Add Hardware Wizard" specify the directory that includes the RTC®5 drivers. During installation, the operating system automatically selects the appropriate driver file (32- oder 64-bit).

For Windows 10, 8:

- ▶ Open the Device Manager to display the device tree. Look for the "PCI device" entry and update its driver by specifying the directory that includes the RTC®5 driver.

Driver Upgrade

If you wish to perform a complete upgrade from an RTC®5 software package with version 2012_09_05 or earlier (WDM driver) to an RTC®5 software package with version 2013_02_21 or later (WDF driver), then first install only the RTC®5 software files and test your user program's functionality. Only afterward should you install the new driver, because quickly changing back to older RTC®5 software files is then only possible if you also change the driver (see also notes on [page 1](#)).

If upgrading the driver, also read the notes in `ReadMe_ScanlabClassChecker.pdf`. Typically, the script `ScanlabClassChecker.cmd` needs to be run, too.



Caution!

- The RTC®5 Board does not support power-saving modes that switch off power to the PCI bus. Accordingly, you must disable standby or sleep modes of the operating system. Particularly disable the Windows sleep mode option (some Windows operating systems enable this option by default). See also the note on [page 1](#).