



acontis technologies GmbH

SOFTWARE

# **Installation Guide for EC-Win LICENSED**

Getting Started Guide

Version 1.3

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# Table of Contents

## **Inhalt**

- Introduction ..... 4
  - Prerequisites..... 4
- Step 1: Install RTOS-32 FULL Version..... 5
- Step 2: Install/License EC-Win version..... 6
- Step 3: Install additional received packages of EC-Win LICENSED Version..... 7
  - I. License-scheme depend \*.zip file (Optional) ..... 7
  - II. Update of integrated EC-Master with supplied .zip file (Optional) ..... 8
  - III. Additional Hot-Fix \*.zip file(s) (Optional) ..... 8
- Step 4: Replace manually some original RTOS-32 files with a modified version (Optional) .... 10

## Introduction

The required installation steps for EC-Win differs only in installing RTOS-32 FULL version and maybe additional licensing schemes. While a yet installed EC-Win (for testing purposes) can be used further, by plug-in/applying a dongle/MAC-based license. The On Time RTOS-32 real-time operating system setup must be done to gain the FULL version of RTOS-32 (Step 1).

**CAUTION: RECREATE OF THE SYSTEMMANAGER WORKSPACE MAY BE REQUIRED TO GET THE RTOS-32 FULL VERSION USED. PLEASE CHECK SYSTEMMANAGER SETTINGS, IF THE RTOS-32 FULL VERSION COULD BE DETECTED. THIS SHOULD BE DONE AFTER LAST STEP.**

Furthermore acontis offers several licensing methods, which have to be applied during the setup of the LICENSED version of EC-Win. According to the licensing scheme, the appropriate.zip file will be shipped (in case the default licensing scheme shall not be applied). In case of shipping updates or hot-fixes these may be shipped as .zip files as well. These kinds of update are described at step 3 and are only needed if applicable.

Step 4 describes the required changes (if applicable → acontis AddOn package received) which have to be applied after installation of the On Time RTOS-32 real-time operating (described in step 1). It is strongly recommend to back up the original installation files.

This document gives you an overview about the needed steps to setup and configure an EC-Win LICENSED version system.

**CAUTION: THE ORDER OF THE STEPS IS IMPORTANT!**

## Prerequisites

Please make sure that the following conditions are met:

- Installed .NET Framework Version 4.0 (Client Profile) (For running the System Manager)
- Installed Microsoft Visual Studio 2005 or younger with latest service pack.
  - Visual Studio 2005 – Visual Studio 2019 Professional supported.
  - Express Editions are **not** supported.
  - Community editions<sup>1</sup> are currently **not** supported.

*Caution: As our setup.exe determines which Visual Studios are installed and installs all needed wizards and add-ons of the detected Visual Studios, it is important, that the desired Visual Studio is installed before step 2. Later installed Visual Studios need a manual update with the needed wizards and add-ons!*

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<sup>1</sup> **USING OF THE COMMUNITY EDITION IS NOT SUPPORTED.**

# Step 1: Install RTOS-32 FULL Version

Install all received/licensed packages from On Time RTOS-32.

- a) A leased the following RTOS-32 packages are needed to get a running RTOS-32 EC-Win environment:  
RTTarget-32, RTKernel-32 and RTVmf-32
- b) Install the required RTOS-32 packages in the following order:
  - RTTarget-32
  - RTKernel-32
  - RTVmf-32
- c) Install additionally licensed modules from On Time RTOS-32 like RTIP<sup>2</sup>, etc.

*CAUTION: ALL EXAMPLES ARE DESIGNED TO WORK WITH/WITHOUT RTIP MODULE. COMPILING THE EXAMPLE THE FIRST TIME COULD LEAD INTO COMPILE ERRORS, IF NO RTIP MODULE IS INSTALLED. IN THAT CASE COMMENT OUT THE MISSING <SOCKET.H> ENTRY IN THE SOURCE CODE AND RECOMPILE ALL.*

***Hint: The received RTOS-32 license sheet contains in the last table information, which RTOS-32 modules can be installed with the required install keys. Please check supplied RTOS-32 CD for the mentioned .exes and executes it in the aforementioned order.***

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<sup>2</sup> The needed or desired additional modules depend only on project requirements. Our examples are designed to work with the minimal needed RTOS-32 packages defined in a), sometimes after a manual adjustment.

### Step 2: Install/License EC-Win version

In default case the received EC-Win package is the same as the package used for evaluating purposes. Therefore no further install actions should be needed. If a different licensing scheme from our default schemes (WIBU dongle or EC-Master MAC-based license) should be applied, than please check-out step 3 for additional actions.

- a) Default case:  
Plug-in received WIBU dongle into your PC with the restricted EC-Win → you are done.  
If a MAC-based EC-Master license key is received → Set the key in your source code and recompile your application → you are done
- b) Different Licensing Scheme (Step 3.I):  
Do apply Step 3.I
- c) Deprecated HWID-based licensing:  
Same as default case. Apply HWID on an existing restricted EC-Win installation → you are done.
- d) Newer package of EC-Win received as used for evaluation:  
Either upgrade the existing EC-Win installation to new version (recommended, a must if b) applies!) or use the existing installed EC-Win with the dongle or MAC-based license (except: b) )

*Hint: It is recommended to do the steps of step 3 before the reboot will be done (if applicable).*

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**CAUTION: DO NO START THE REAL-TIME OR THE SYSTEM MANAGER UNTIL THE LAST STEP IS DONE (ONLY IF EC-WIN PACKAGE WAS REINSTALLED).**

## Step 3: Install additional received packages of EC-Win LICENSED Version

### I. License-scheme depend \*.zip file (Optional)

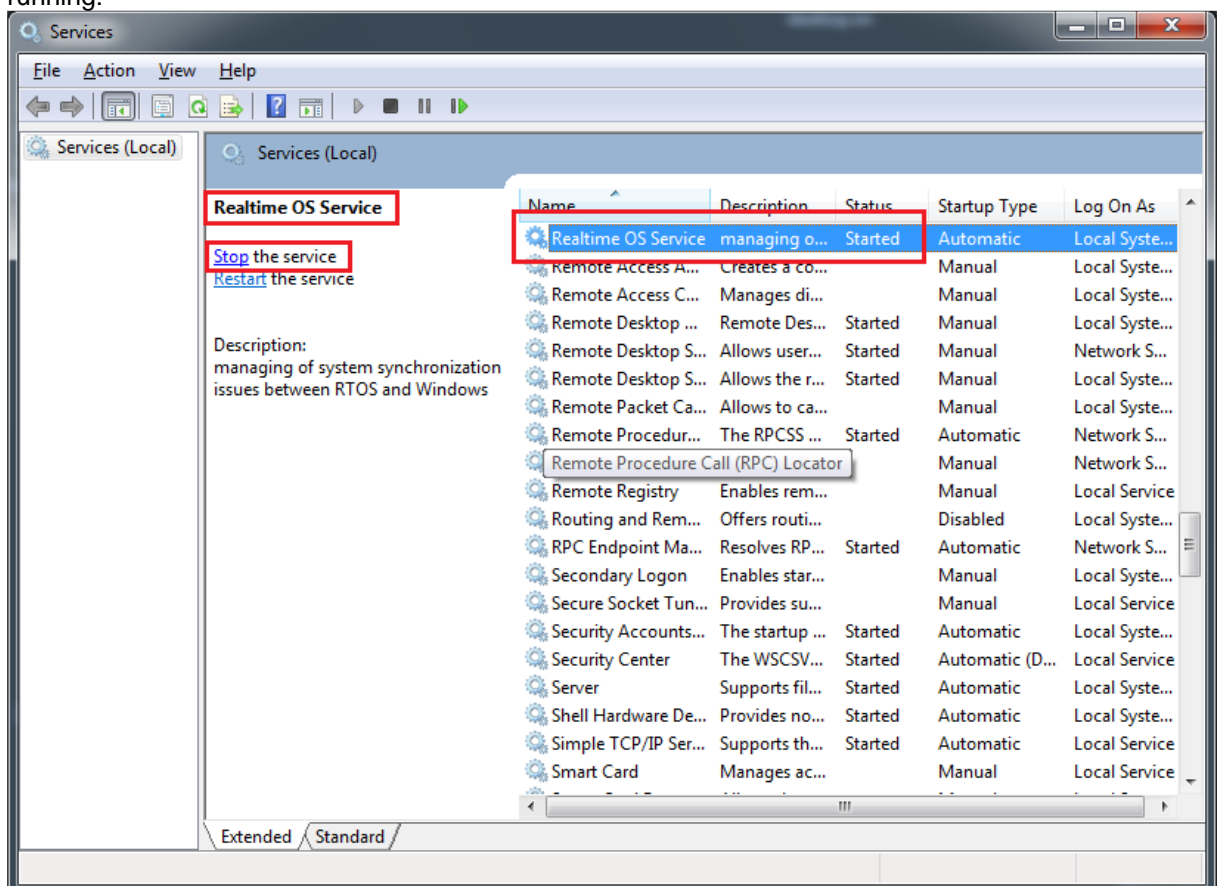
acontis offers different licensing schemes for the runtime systems and thus additional packages are available in addition to the standard licensing scheme (USB dongle licensing/MAC-based EC-Master-License). When changing the default license-scheme, a \*.zip file like License\*.7.0.XX.XX.zip is shipped.

The license-scheme depend files mainly apply to the RteRuntime sub directory of the parent of the INSTALDIR. By default, the product is installed to '[...] \acontis\_technologies \<product> \.' and the co-installed runtime is located at '[...] \acontis\_technologies \RteRuntime \.' One level up to the INSTALDIR. The RteRuntime contains either the x86 runtimes **OR** the x64 runtimes!

**CHANGES HEREIN REQUIRE OFTEN A REBOOT, BECAUSE SOME EXES ARE REPLACED.**

*Note: This applies to all additional received license-depend .zip files if not other stated!*

- Unzip it into a temporary directory
- If applicable: stop the real-time environment, terminate the System Manager and the Debug Console
- Stop the RTOS Service Go to the Services section and stop the Realtime OS Service if running:



- d) Copy depend content (source directory) from the unzip folder into the <INSTALLDIR> of EC-Win into the Runtime folder.  
CAUTION: THE RUNTIME INSTALLS IN A SEPARATE SUB-DIRECTORY OF ACONTIS TECHNOLOGIES DIRECTORY!
  - On x86 systems: Source directory is RteRuntime.x86
  - On x64 systems: Source directory is RteRuntime.x64
- e) Start the RTOS Service again

## II. Update of integrated EC-Master with supplied .zip file (Optional)

In case a new version of the EtherCAT master stack shall be used, a ZIP file which contains the required update will be provided.

*Note: This applies to all additional received EC-Master update .zip files if not other stated!*

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- a) Unzip it into a temporary directory
- b) Copy all content from the unzip folder into the <INSTALLDIR> of EC-Win

## III. Additional Hot-Fix \*.zip file(s) (Optional)

If there are hot-fix packages available for the currently installing version of EC-Win, it's highly recommended to install/apply the available hot-fixes.

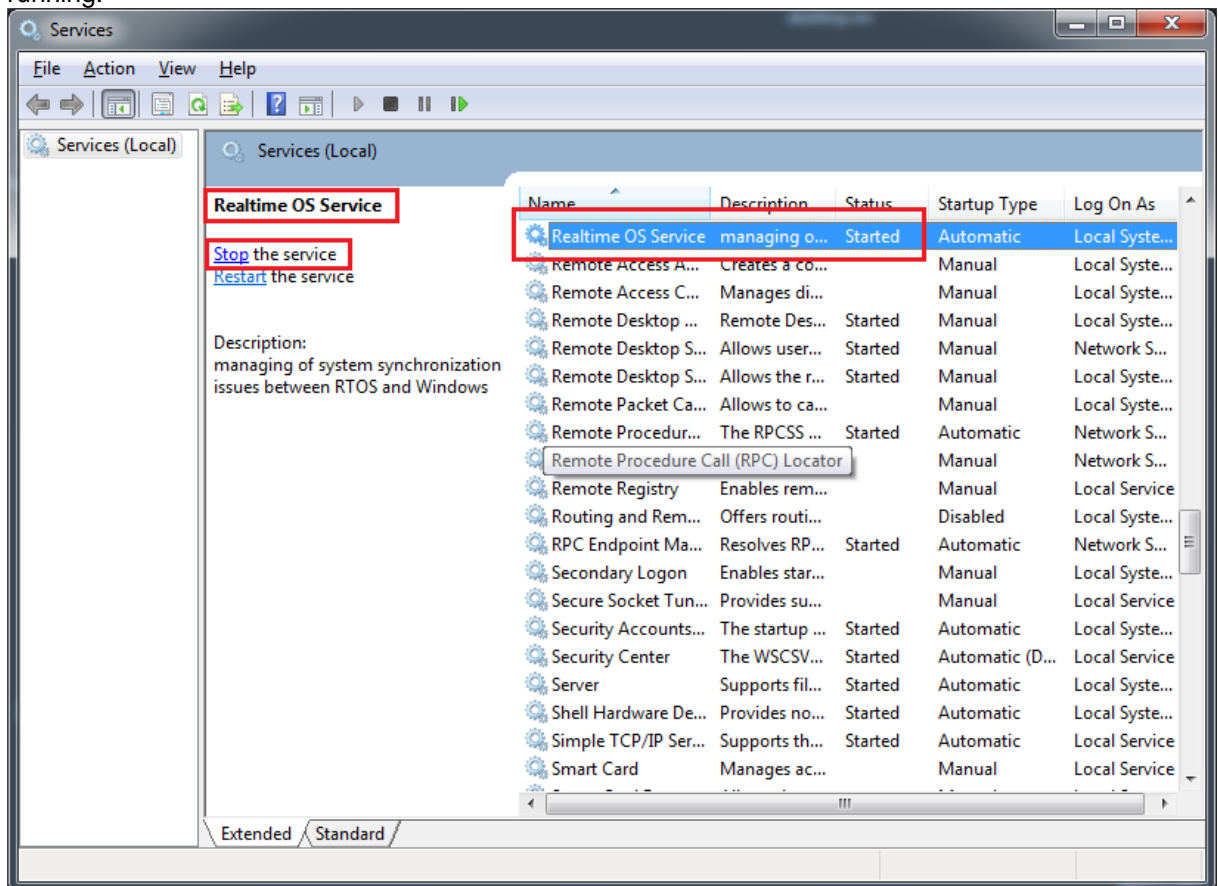
*Note: This applies to all additional received .zip files if not other stated!*

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- a) Unzip it into a temporary directory



- b) Stop the RTOS Service Go to the Services section and stop the Realtime OS Service if running:



- c) Copy all content from the unzip folder into the <INSTALLDIR> of EC-Win  
d) Start the RTOS Service again

# Step 4: Replace manually some original RTOS-32 files with a modified version (Optional)

**CAUTION: THIS STEP ONLY APPLIES, IF AN ADD-ON ZIP PACKAGE FOR RTOS-32 IS RECEIVED.**

If an AddOn package is available it is required to update the original version of On Time RTOS-32 before using EC-Win.

***HINT: OMITTING THIS STEP IF ADD-ON PACKAGE IS AVAILABLE WILL LEAD INTO COMPILE ERRORS AND NOT ALL DESCRIBED FEATURES OF THE PRODUCT CAN BE USED!***

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- a) Backup the original version of RTOS-32 <INSTALLDIR> like C:\Program Files\On Time RTOS-32 6.0\\*.\*
- b) Open the <ECWIN\_DELIVERY\_PACKAGE>\SDK\On Time RTOS-32 6.0 AddOn\\*.\* directory using the Windows Explorer and copy the whole content.
- c) Open the On Time RTOS-32 <INSTALLDIR> and replace the original files with the modified files.

***Hint: the following files will be replaced:***

```
- \Include\rteError.h

      \Rteos.h

      \rteVersion.h

      \rtosLib.h

      \rtosstdio.h

      \vmfInterface.h

- \Libmsvc\Makefile

      \Rtvmf.lib
```

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