Windows Mobile Device Center(WMDC) replacement

Since the introduction of SmartGuard and SeaGuardII Aanderaa has used Windows Mobile Device Center for connection between logger and PC. This WMDC has been a part of Windows until Windows10, and in March 2022 Microsoft removed the software from their download list. Based on this Aanderaa has developet a replacement for WMDC called USB Serial.

This document decribes the different alternatives for how to configure a SeaGuardII/SmartGuard via our AADI Real-Time Collector software.either using the old WMDC if allready installed on your PC or using USB Serial.

You may download the latest version of or software image from our webpage **https://www.aanderaa.com/** or use the link below.

AADI- Real-Time Collector:

https://aanderaa1.xyleminc.com/AADI%20Real-Time%20Collector/

SeaGuardII Image:

https://www.aanderaa.com/media/software/seaguardii-latest-firmware.zip

SmartGuard Image:

https://www.aanderaa.com/media/software/smartguard-latest-firmware.zip

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1.1 Version Dependencies

What alternatives you may use depends on your image version and if you have WMDC available.

1.1.1 SeaGuardII

Image older than 3.0.224

- AADI Real-Time Collector version older than 7.0.11.0

  - Use USB and WMDC

- AADI Real-Time Collector version 7.0.11.0 or newer

  - Use USB ActiveSync

Image 3.0.224 or newer

- AADI Real-Time Collector version 7.0.11.0 or newer

- Use USB Serial

1.1.2 SmartGuard

Image older than 2.1.224

- AADI Real-Time Collector version older than 7.0.11.0

  - Use USB and WMDC

- AADI Real-Time Collector version 7.0.11.0 or newer
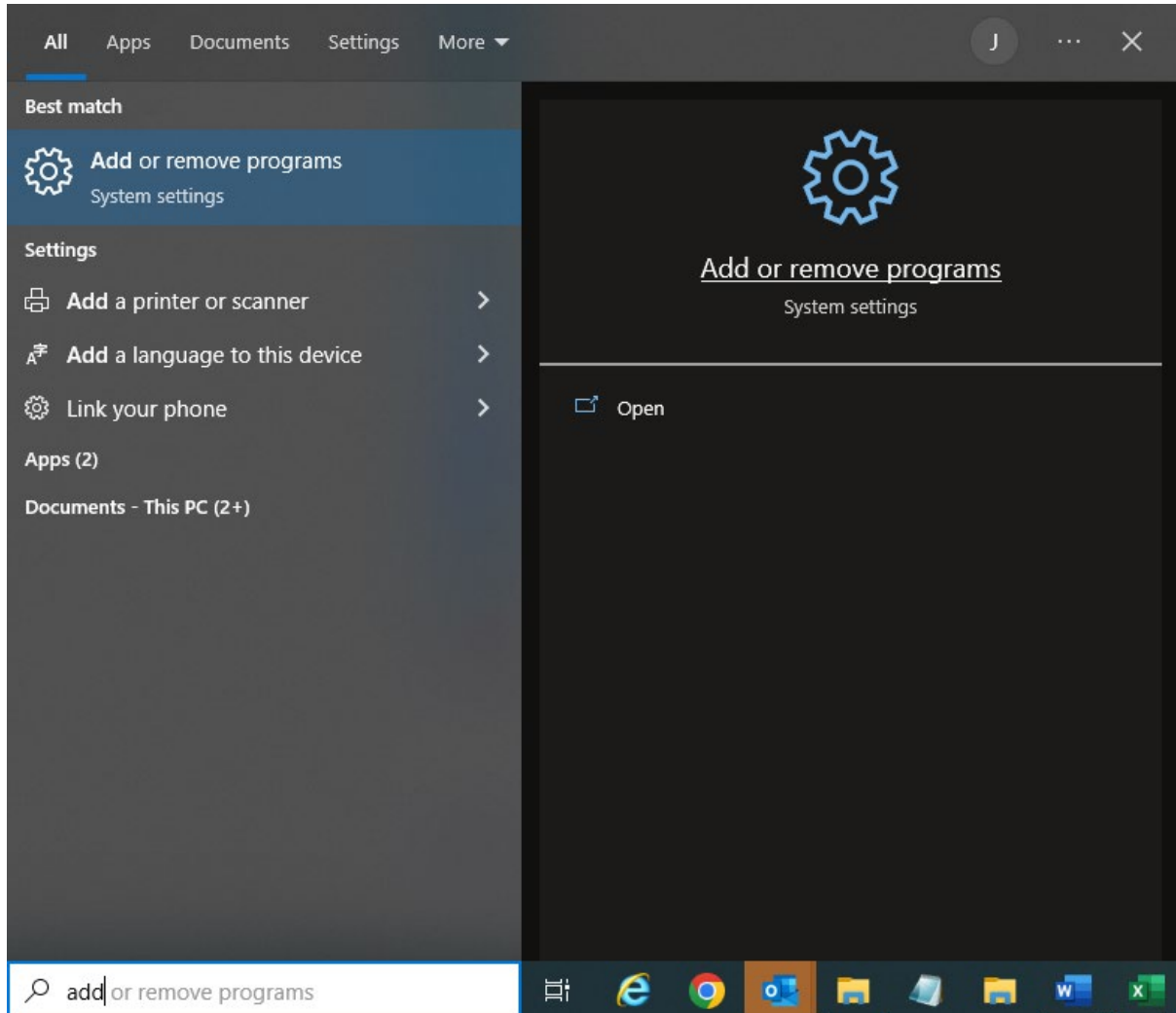
  - Use USB ActiveSync

Image 2.1.224 or newer

- AADI Real-Time Collector version 7.0.11.0 or newer

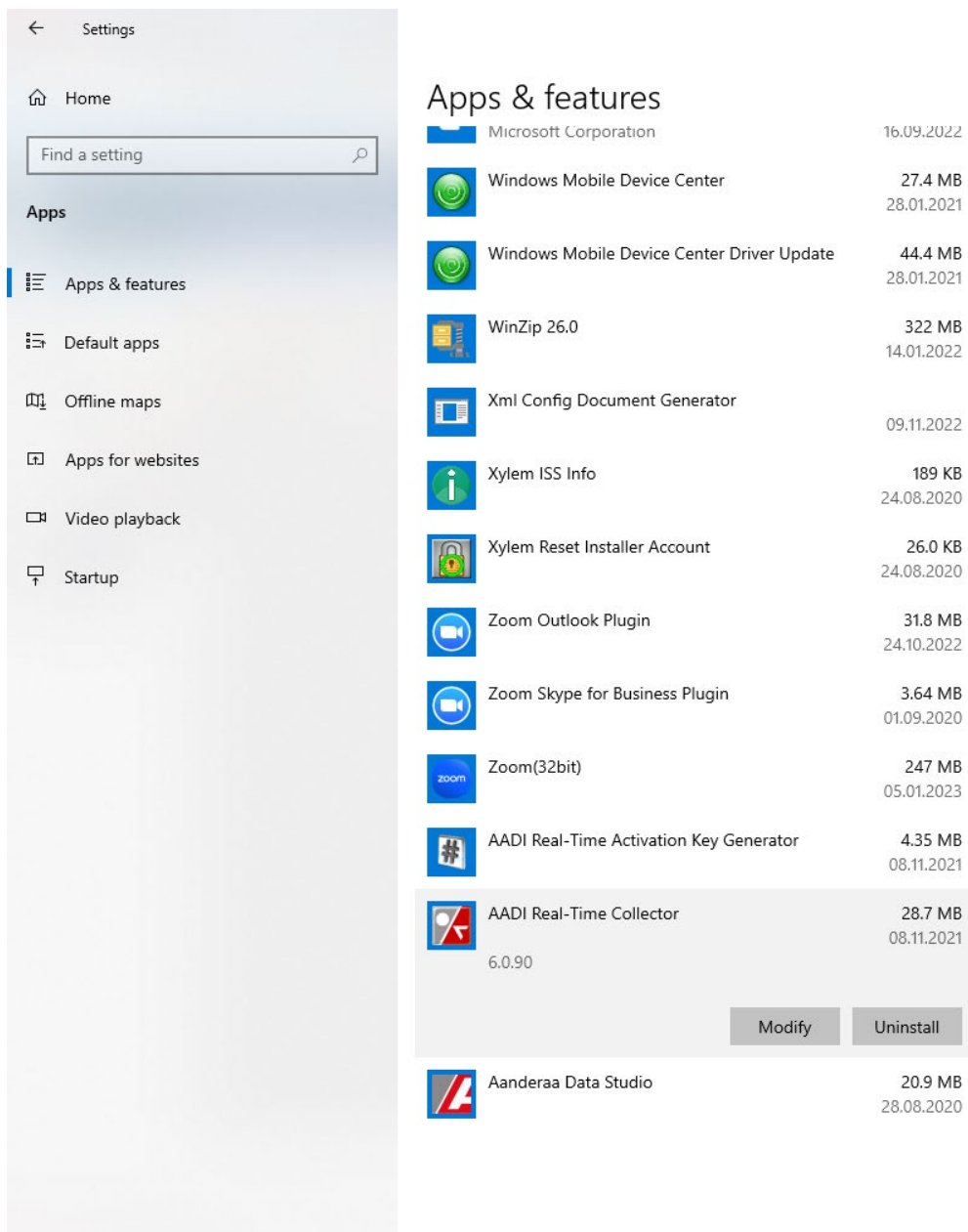 - Use USB Serial

  - Use USB ActiveSync

Please note that there may also be a version dependency if you have older sensors installed.

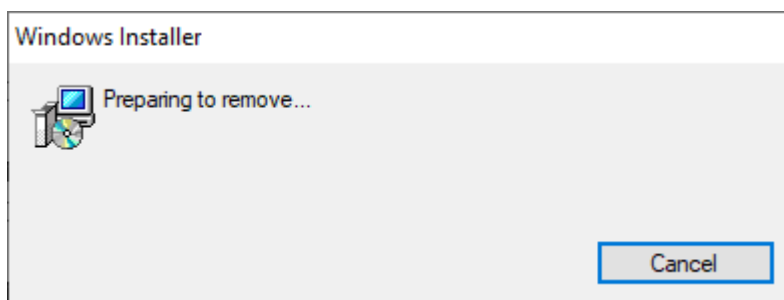## 1.2 Installing or updating AADI Real-Time Collector

If you already have an older version of AADI Real-Time Collector installed. You need to remove this before you install the newest version

Select AADI Real-Time Collector from the list an press Uninstall.

A new window will show up and the disappear when the older version is removed.

Select the new installation file from link and then

Aanderaa Instruments AS
AADI Real-Time Collector

Name: AADI Real-Time Collector

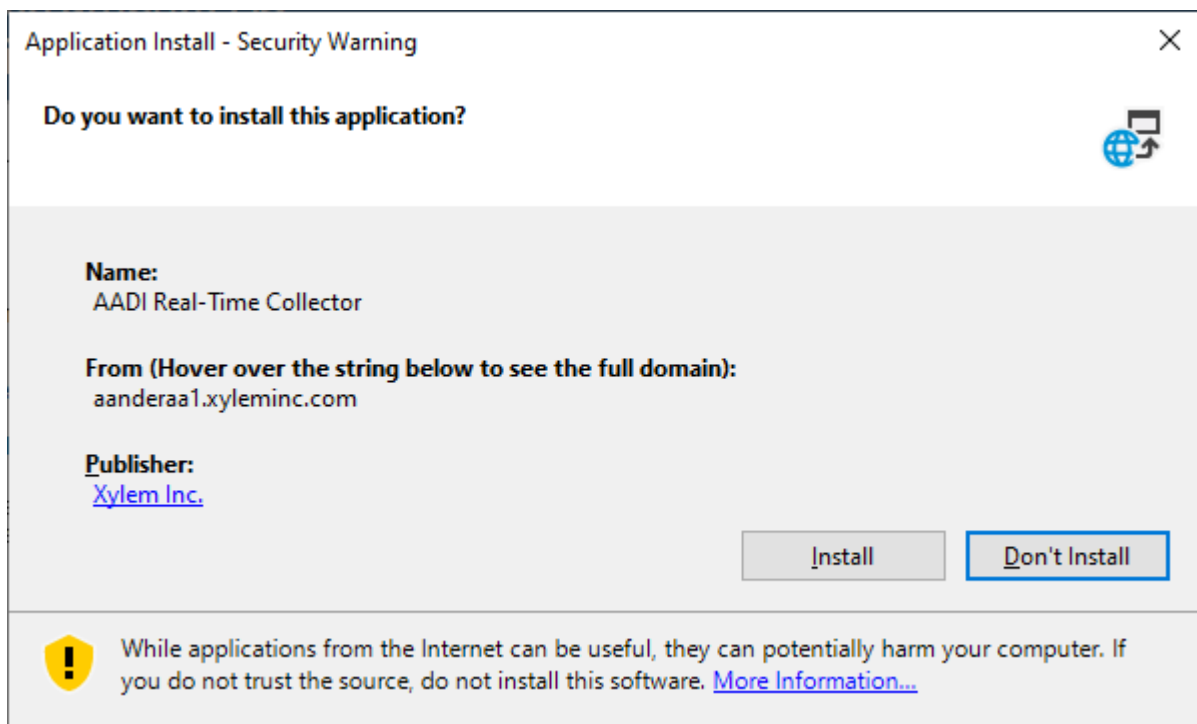**Version:**   7.0.11.35

Publisher: Aanderaa Instruments AS

The following prerequisites are required:
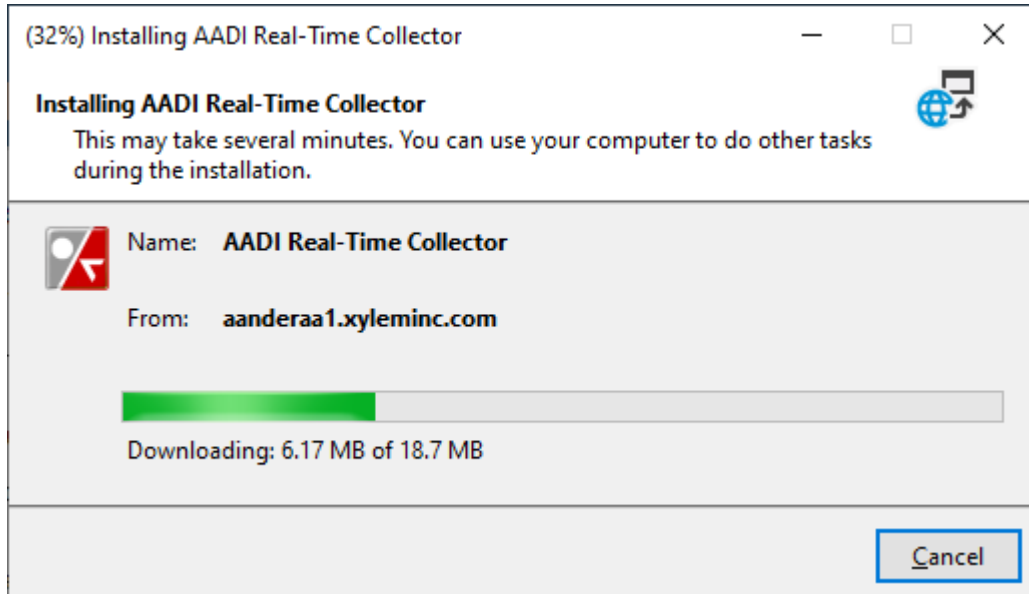
- Microsoft .NET Framework 4.8 (x86 and x64)

If these components are already installed, you can launch the application now. Otherwise, click the button below to install the prerequisites and run the application.

    Install

Press on Install to start the installation.

Application Install - Security Warning   ✕

Do you want to install this application?

Name:
 AADI Real-Time Collector

From (Hover over the string below to see the full domain):
 aanderaa1.xyleminc.com

Publisher:
 Xylem Inc.

                                                    Install   Don't Install

⚠ While applications from the Internet can be useful, they can potentially harm your computer. If you do not trust the source, do not install this software. More Information...

Press Install again

Wait until the software are installed. If you are not able to install the new version please contact your administrator or contact Aanderaa.support@xylem.com

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2.1 SmartGuard

- Upgrade the SmartGuard Image to version 2.1.235 (or later).
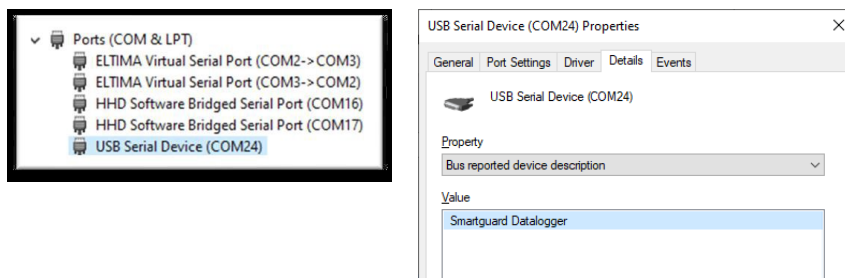- Upgrade AADI Real-Time Collector to version 7.0.11.0 (or later)

2.1.1 USB as virtual comport

- Create a text file called "StartupConfig.txt" and set following content:
  "**usbfunction = virtualcomport**".
- Place the file on the SmartGuard SD Card.
- Insert the SD Card and reboot the SmartGuard.
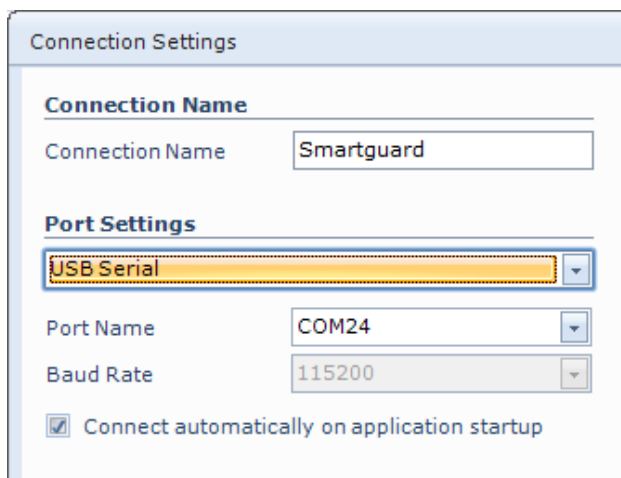- Reboot the SmartGuard.

📄 StartupConfig.txt

usbfunction = virtualcomport

After reboot the SmartGuard will appear in Device Manager:

In Real-Time Collector, Configure a connection as USB Serial:

2.1.2 USB as Active Sync (WMDC):

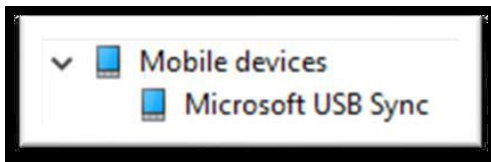- Create a text file called "StartupConfig.txt" and set following content:

  "usbfunction = activesync ".

- Place the file on the SmartGuard SD Card.
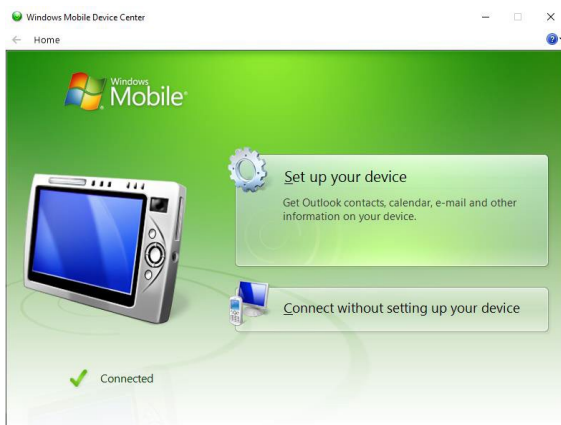- Insert the SD Card and reboot the SmartGuard.
- Reboot the SmartGuard.

usbfunction = activesync

After reboot the SmartGuard will appear in Device Manager:
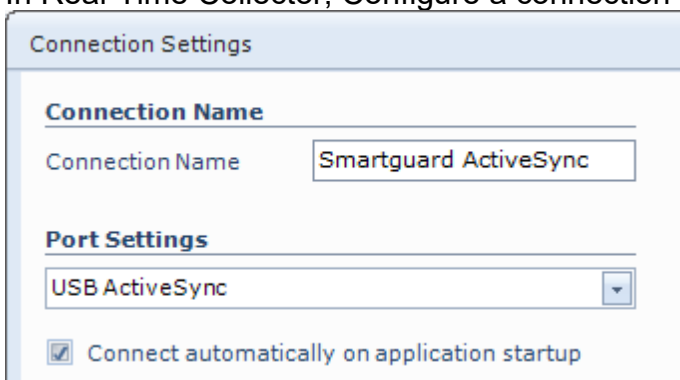

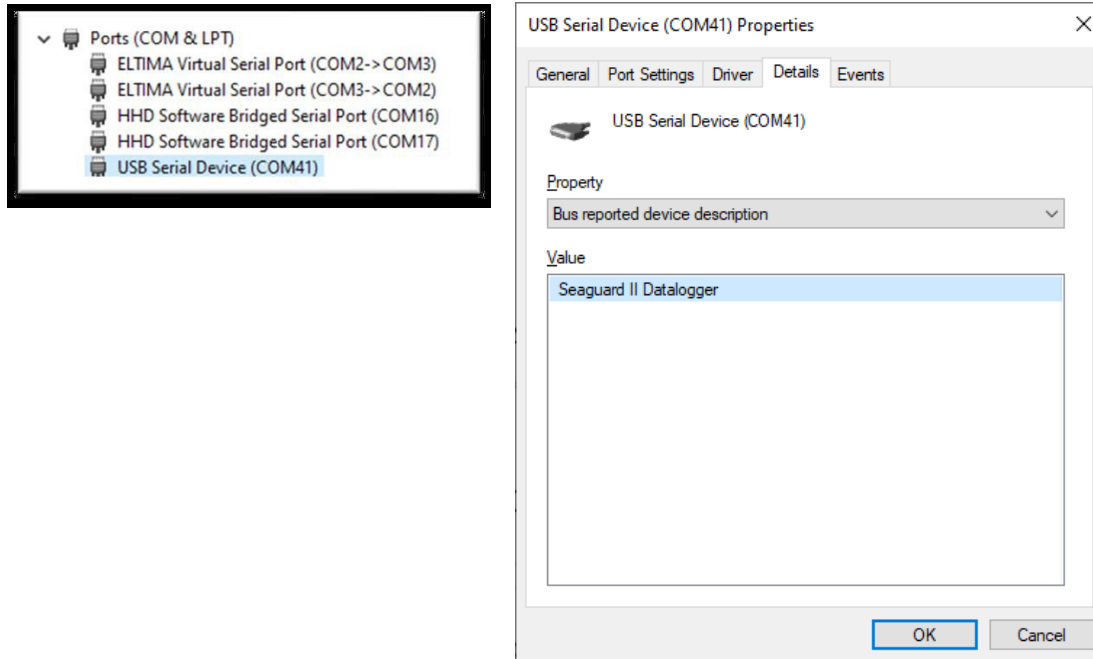Start Windows Mobile Device Center.

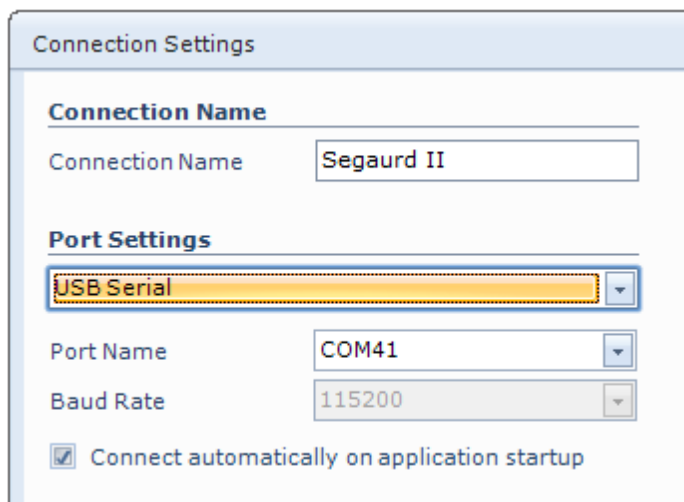In Real-Time Collector, Configure a connection as USB ActiveSync:

2.2 SeaGuard II

- Upgrade to Image 3.0.224 (or later).
- Upgrade AADI Real-Time Collector to version 7.0.11.0 (or later)
- Connect the USB cable.

The SeaGuardII should appear in Device Manager:

In Real-Time Collector, Configure a connection as USB Serial

3.1 SeaGuardII Image Upgrade

Instructions for uploading SeaGuardII Image and descriptions around the procedures are given below.

3.1.1 Upload SeaGuardII Image and Update New Registry

This section covers the task of upgrading a SeaGuardII image (the main software of the unit) and the instrument database (the Registry).

The Registry is a vital part of the SeaGuardII software. The registry holds information that the Instrument software applies to obtain information about different software components the system loads and unloads during an execution.

There are actually three copies of the Registry in the system. One is stored together with the image and is called the ROM version. Another is stored in Flash and is called the Flash version. None of these are not lost when power is switched off.

When the instrument is switched ON, the operating system first looks for a copy of the Registry in the Flash; this version of the Registry is then copied into RAM and becomes the working Registry. If it does not find a valid Registry in the Flash, it copies the default ROM version (which is always present) into RAM and makes this one the working Registry.

When uploading an image from a SD card, this will erase the Flash version of Registry and force the instrument to use the ROM version that came with the new image.

4.1 Instructions for Uploading SeaGuardII Image

If you already have a SD card with a SeaGuardII Image ready, jump to step 5.

1. Use a SD card of at least 64 MB. Preferably use the SD card you received with the instrument.

2. Insert the SD Reader into the USB slot. Make sure a disk named *Removable Disk* appears in *Explorer.*

3. Erase all content of the SD card. Make sure that the file system is *FAT* in the properties command in *Explorer*. If you prefer to erase the card using the *Format* command, use *FAT* file format (not FAT32 or NTFS).

4. Copy the file named ***NK.nb0*** to the SD card.

    a) Select the file in the PC directory.

    b) Right-click and select *Copy.*

    c) Move to the *Removable Disk* folder, right-click and select *Paste.*

    d) It takes some time to transfer the file (32 MB). However, *Explorer* will report *finish* before the complete transfer has taken place. Thus, monitor the yellow light on the SD Reader for blinking. When the blinking stops, **wait an additional minute**.

    e) Remove the SD card from the reader.

    f) Click *Refresh* in *Explorer* (or go to another directory and back to *Removable Disk*) and confirm that there is no card in the reader.

    g) Insert the SD card again and confirm that the file ***NK.nb0*** exists on the card.

5. Install the SD card in the SeaGuardII SD slot.

6. Open the SD card Housing in the SeaGuardII.

7. Use a pencil or similar to press and hold down the lower boot button in the SD card Housing; Switch *ON* the SeaGuardII before releasing the boot button.

8. Release the boot button.

9. Tap the boot button once more.

10. Release the boot button once more; the new image is about to be transferred. The image is large and will take approximately 10 minutes to download.

11. When the download has finished, Switch *OFF* the instrument using the power switch, and then switch it back *ON* to confirm that the new image has been installed.

To check the image version, connect the SeaGuardII to AADI Real-Time Collector system overview where you will find information about the image version.

5.1 SmartGuard Image update

Procedure to update SmartGuard image:

- Format SD card as FAT (FAT16).
- Copy latest version of the SmartGuard image file, NK.nb0, to SD card.
- Switch OFF the SmartGuard.
- Insert SD card in slot.
- Press and hold both the green and red ring on the SmartGuard keypads while:
    - Switch ON the SmartGuard.
    - Wait for LED to switch from red to green.
- Release the red and green button (retry previous step if green LED goes OFF).
- Press and release green button only. The image is now being installed; the yellow LED is blinking until installation is complete, approximately 3 minutes.
    - (Repress green button if the yellow blinking does not start, check SD card if red LED is blinking).
    - (COM1 and COM2 cables may disturb installation of new image; disconnect cable if so happens).
- Wait until the main menu is shown in the display.
- Insert the SD card cover.

SD card slot

Keypad with red and green ring

Power switch

To check the image version, connect the SmartGuard to AADI Real-Time Collector system overview where you will find information about the image version. Or check using the display.

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