

 **BD Rhapsody™ Scanner**  
Software 2.0.0  
Installation Guide

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## Regulatory information

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

## History

Revision	Date	Change made
23-20709-00	2018-06	Initial release.
23-20709-01	2019-08	<ul style="list-style-type: none"><li>—Updated steps to install BD Rhapsody™ Scanner software.</li><li>—Added steps to install and start BD Rhapsody™ Scanner diagnostics software.</li><li>—Updated BD Biosciences technical support email address to scomix@bdscomix.bd.com.</li></ul>
23-24426(01)	2023-03	<ul style="list-style-type: none"><li>—Updated to software version 2.0.0.</li><li>—Supports the BD Rhapsody™ HT Xpress System and BD Rhapsody™ 8-Lane Cartridge.</li><li>—Strict order of scanning steps.</li><li>—Optimization for "Bead Load" step in the workflow.</li><li>—Increased scanning speed through optimized tile configuration and smart autofocus mode.</li><li>—Drastic increase in analysis speed (for BD Rhapsody™ 8-Lane Cartridges) as well as single-lane cartridges.</li><li>—Improved Error and Warning messaging.</li><li>—Introduced user input validation to mitigate risks of internal data corruption due to use of special characters.</li></ul>

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## Overview

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This document provides instructions for uninstalling, installing, and launching the BD Rhapsody™ Scanner software. The BD Rhapsody™ software installer package is comprised of the following installers:

- RhapsodyPrerequisitesInstaller.exe
- RhapsodyHTExpressScanAnalyzer.msi
- RhapsodyEngineerInstaller.msi
- RhapsodyUserDocsInstaller.msi

As well as the following third-party installers:

- MATLAB\_Runtime\_R2021a\_Update\_5\_win64
- Adobe Acrobat-ver.22.003.20322

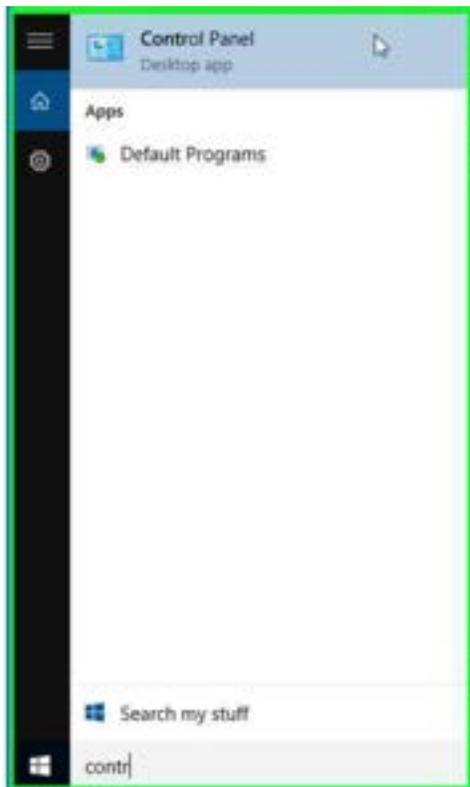
**Note:** For ease of installation, we recommend updating the scanner software using a keyboard and mouse. However, these are not required to successfully complete the installation.

## Confirming current software version

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To verify the existing software version, follow these instructions:

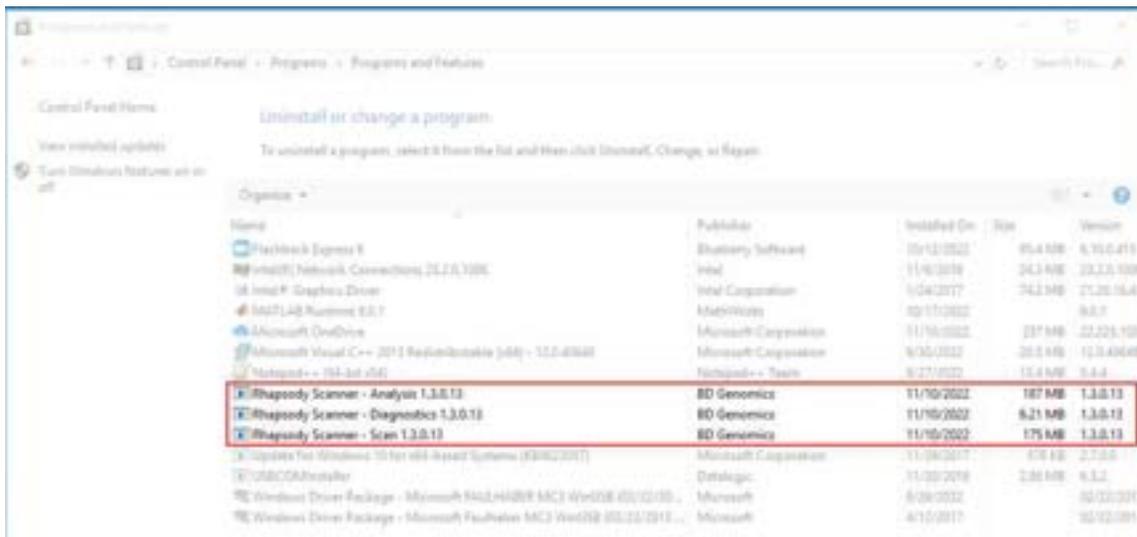
1. In the Search field of the Windows Taskbar, type *Control Panel*.



## 2. Click **Uninstall Program**.



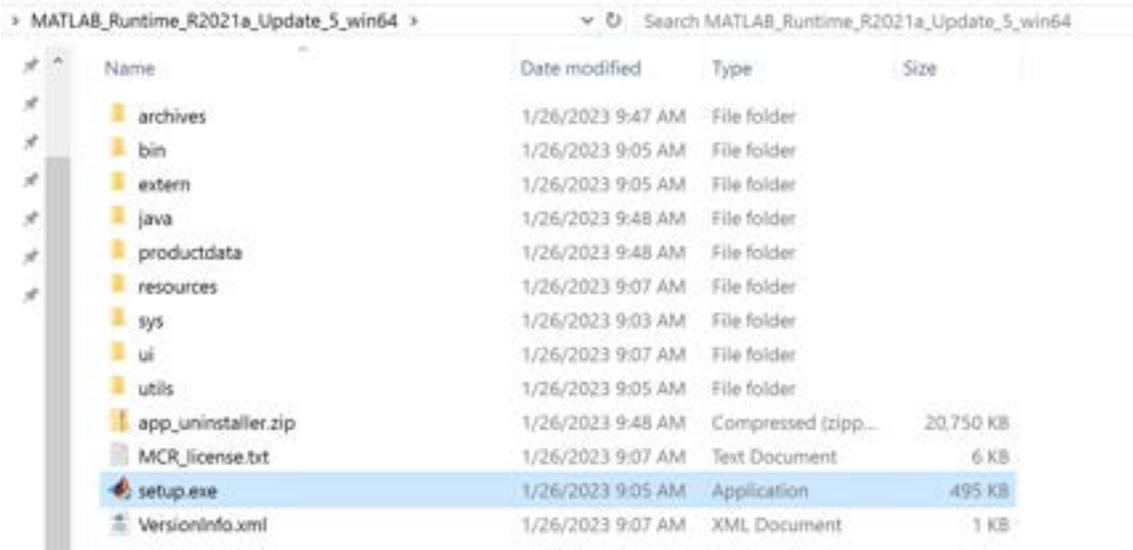
## 3. Confirm the software version for Rhapsody Scanner - Scan, Rhapsody Scanner - Analysis, and Rhapsody Scanner - Diagnostics Apps.



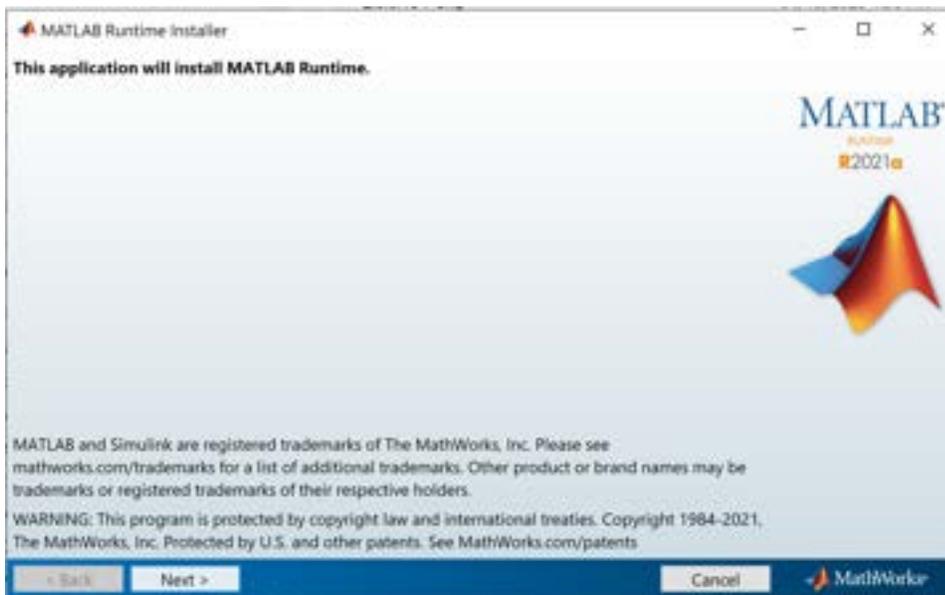
- If the current version of the software is v2.0.0 or later, no further action is required.
- If the current version of the software is v1.3.1.1 or v1.3.0.13 for both the Scan and Analysis applications, follow the instructions in this document.
- If the current version precedes v1.3.1.0.13, install software v1.3.1.1 before proceeding with installing v2.0.0 (important for data and calibration migration!).

## Installing MATLAB Runtime

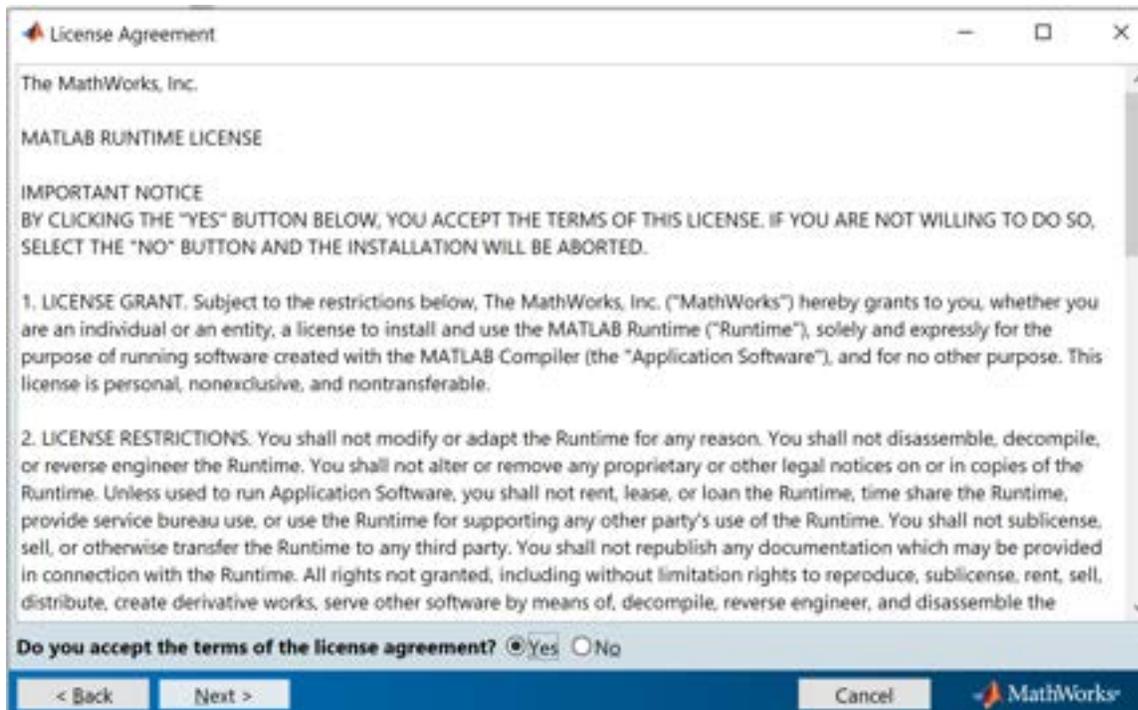
1. Open folder MATLAB\_Runtime\_R2021a\_Update\_5\_win64.
2. Open *setup.exe*.



3. Click **Next**.



4. Accept terms of the license agreement and click **Next**.



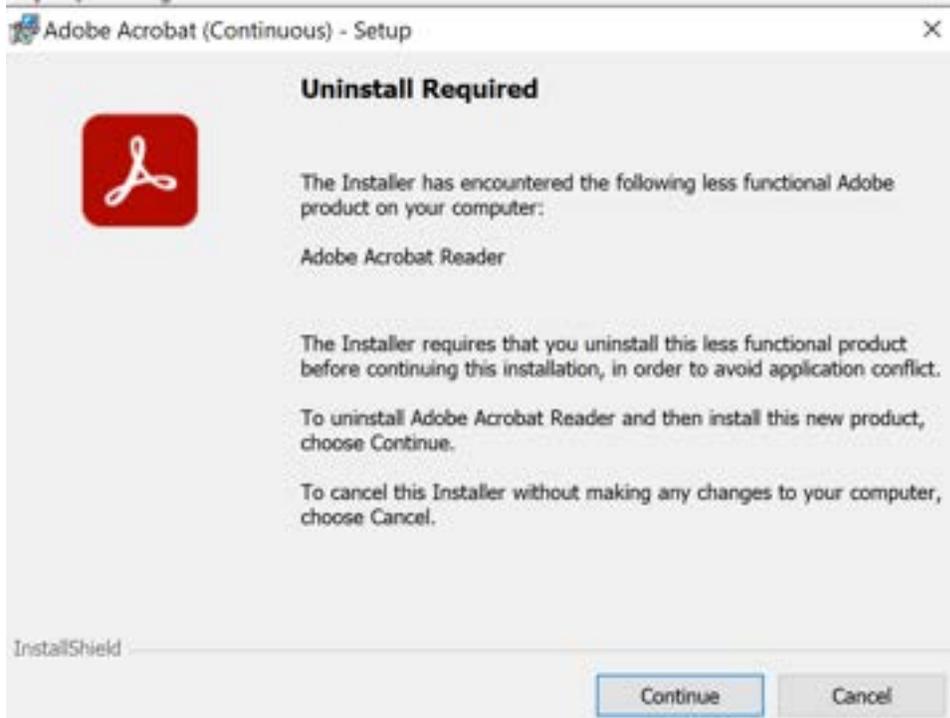
5. Wait for the installation to complete and click **Finish**.



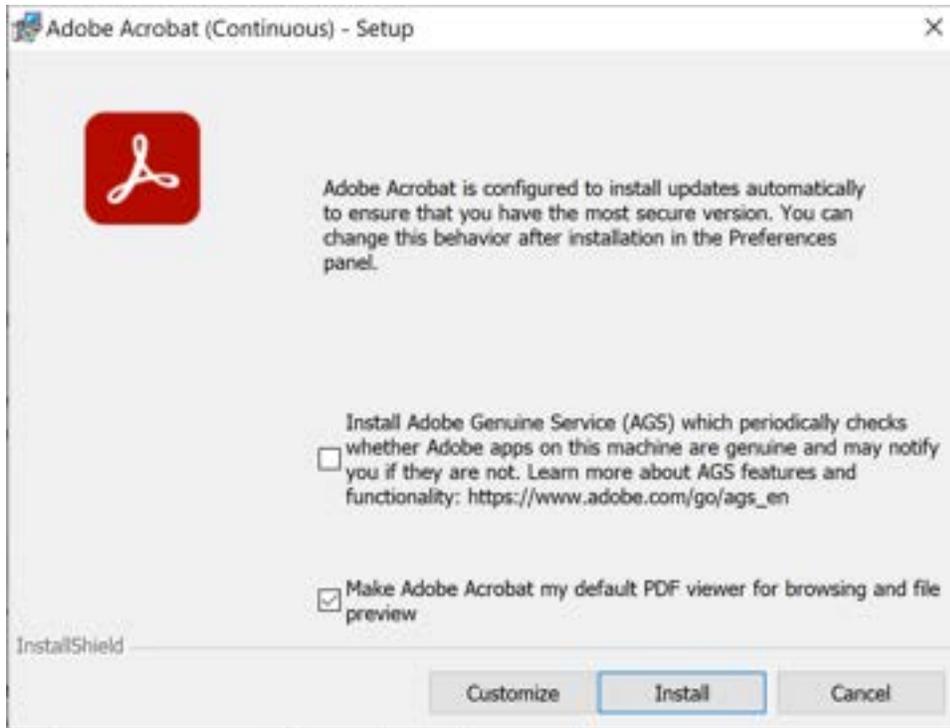
## Installing Adobe Acrobat

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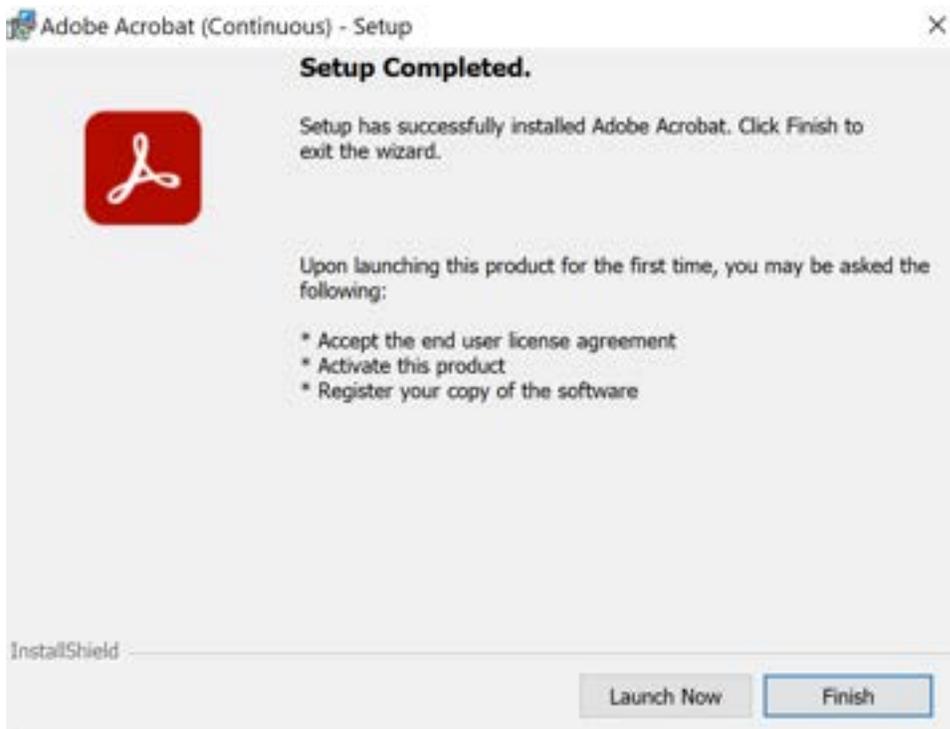
1. Open folder Adobe Acrobat-ver.22.003.20322.
2. Open *setup.exe*.
3. Click **Continue**.



4. Clear the **Install Adobe Genuine Service (AGS)** check box and click **Install**.

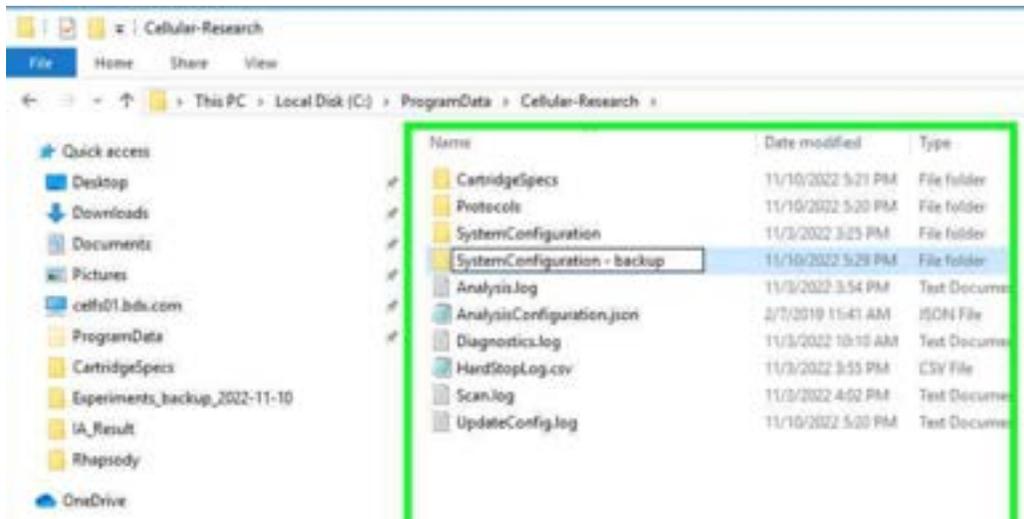


5. Follow instructions to complete setup and click **Finish**.

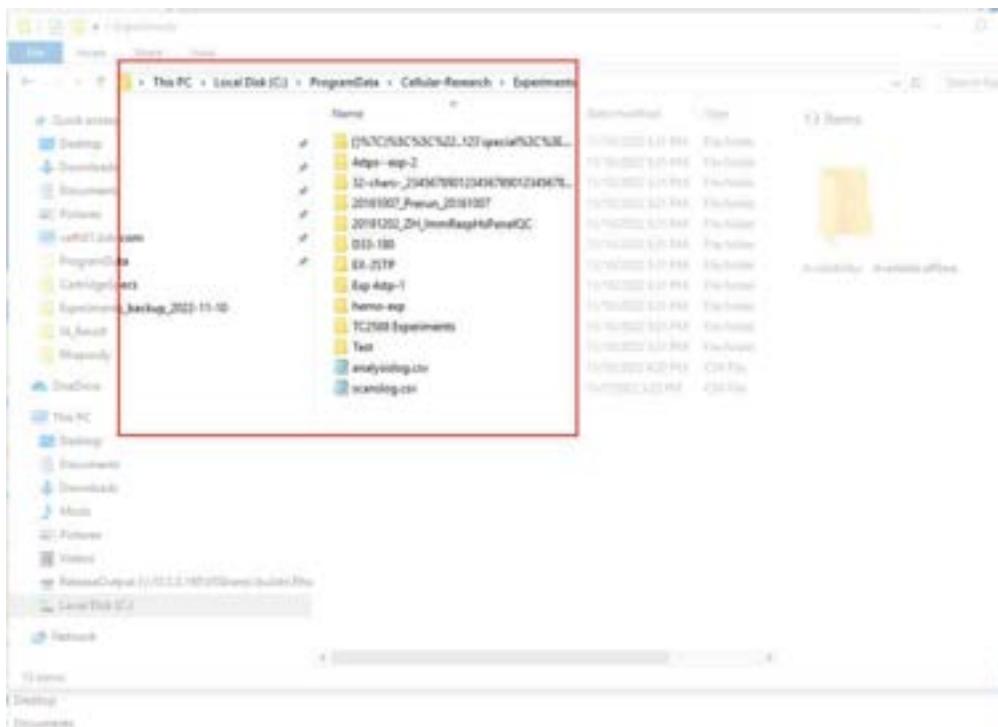


## Creating back-up for the “SystemConfiguration” folder and record experiments

1. Navigate to the folder C:\ProgramData\Cellular-Research.
2. Create a copy of the folder SystemConfiguration.

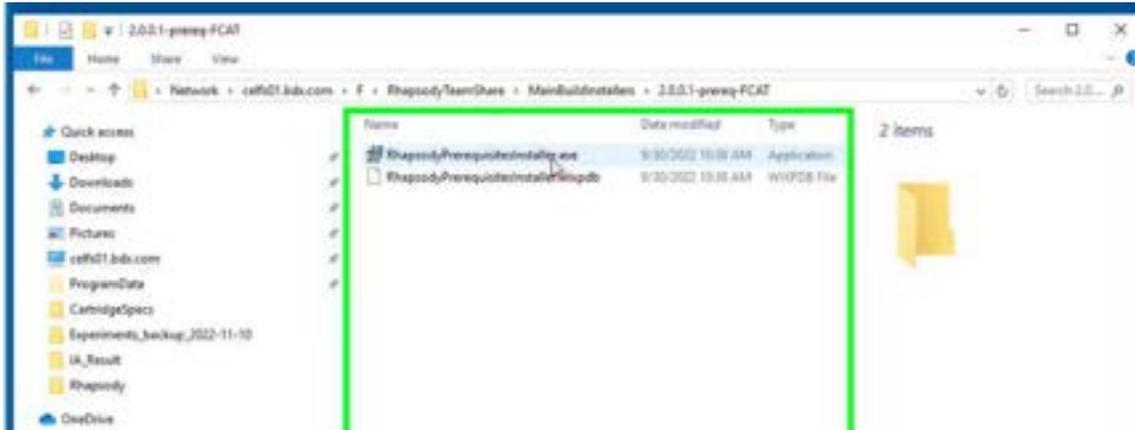


3. Navigate to the folder C:\ProgramData\Cellular-Research\Experiments and record content (for example, take a screenshot).

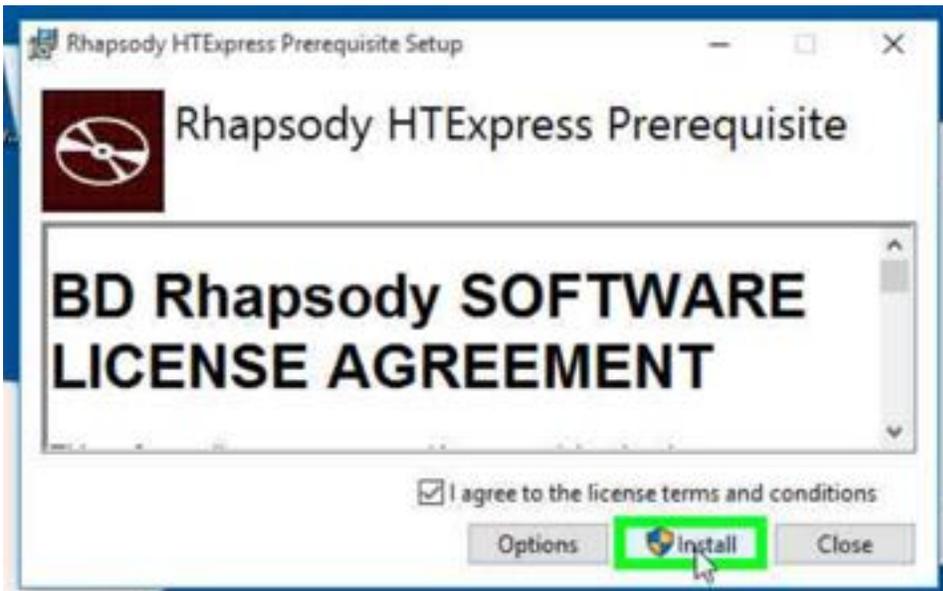


## Installing Rhapsody Prerequisites

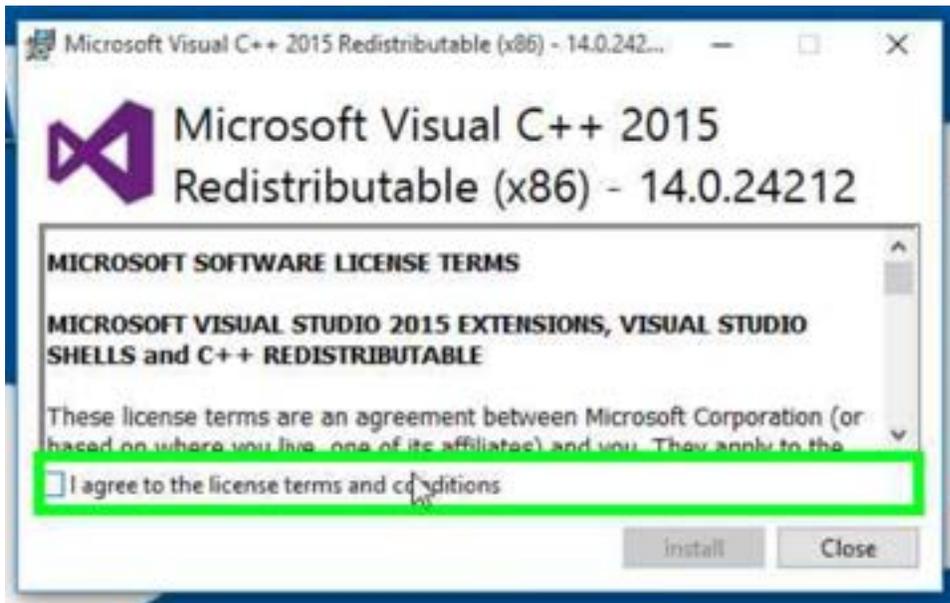
1. Open *RhapsodyPrerequisiteInstaller.exe*.



2. Select the **I agree to the license terms and conditions** check box and click **Install**.



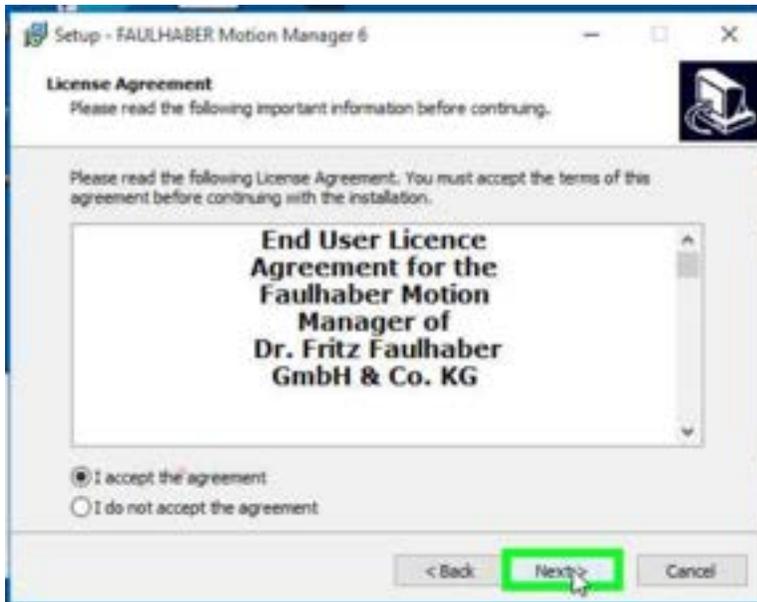
3. Select the **I agree to the license terms and conditions** check box and click **Install**. (It might take several iterations.)



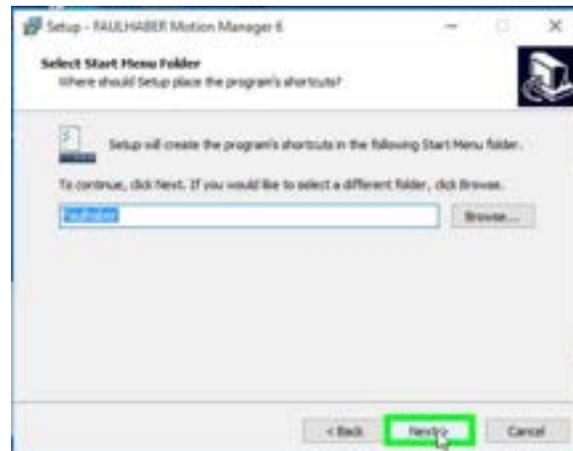
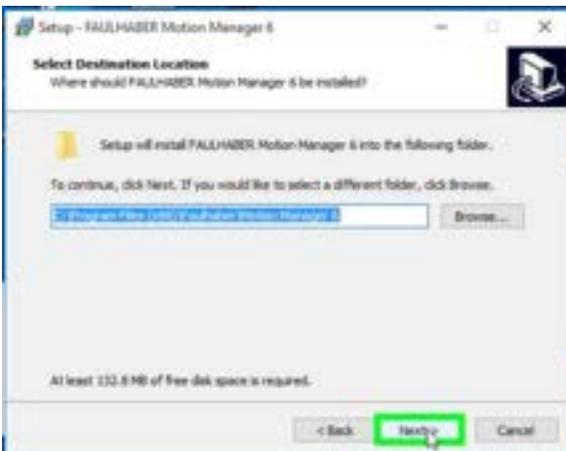
4. On the Setup - FAULHABER Motion Manager 6 window click **Next**.



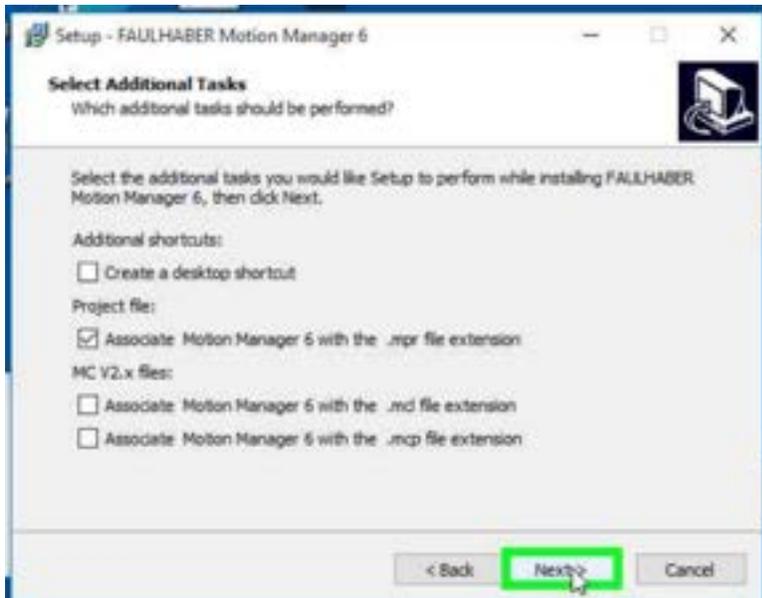
5. Accept the License Agreement and click **Next**.



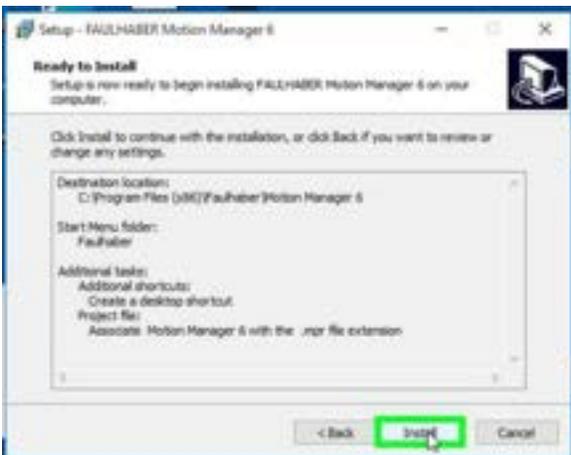
6. Select the default folder and click **Next**, then select the Start menu and click **Next**.



7. Clear the **Create a desktop shortcut** check box and click **Next**.



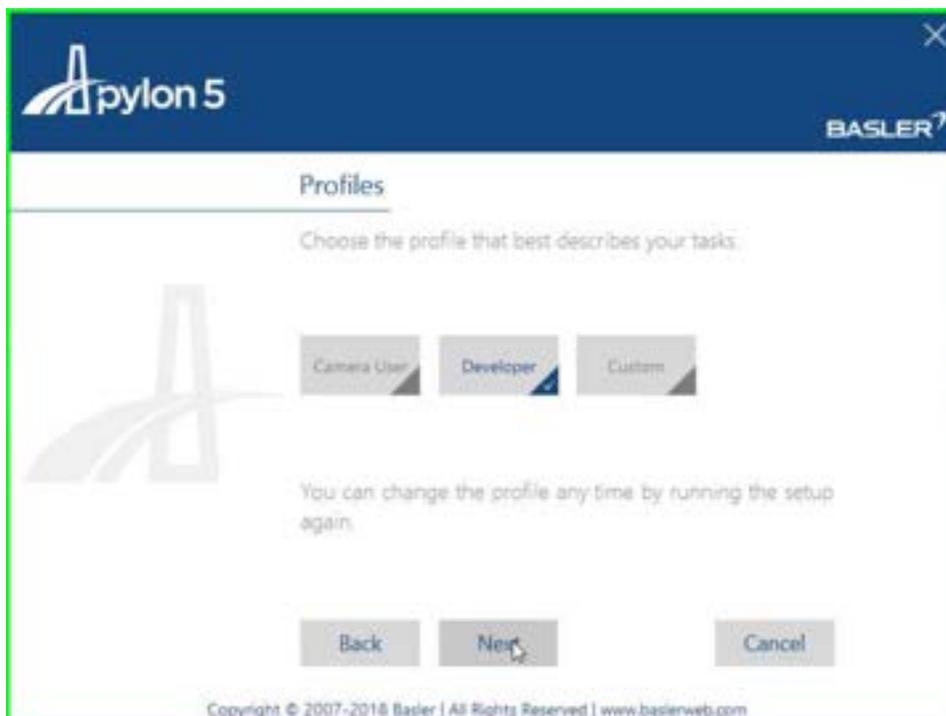
8. Finish installation (click **Install** and click **Finish**).



9. On the Welcome window, select the **I agree to the pylon Terms & Conditions** check box and click **Next**.



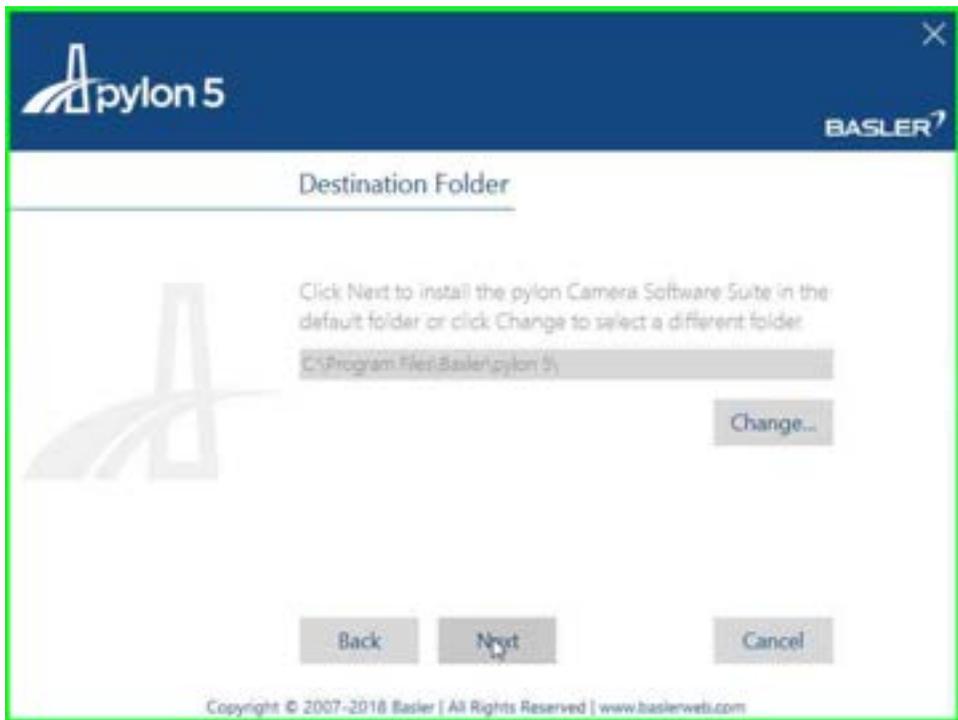
10. On the next screen in the Profiles section, select **Developer**. Click **Next**.



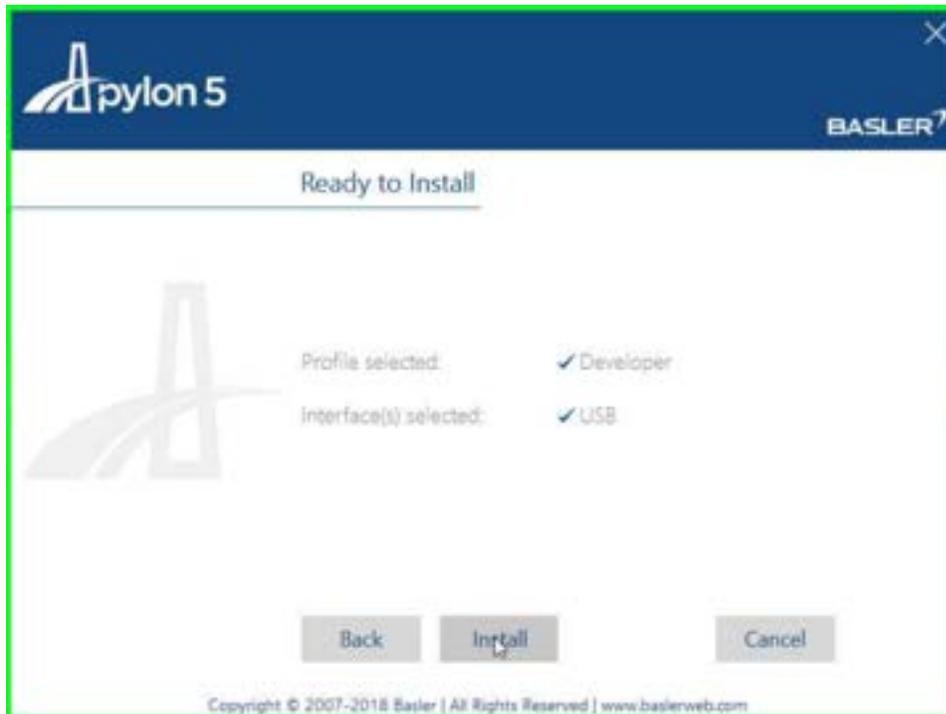
11. On the next screen Interfaces, select **USB**. Click **Next**.



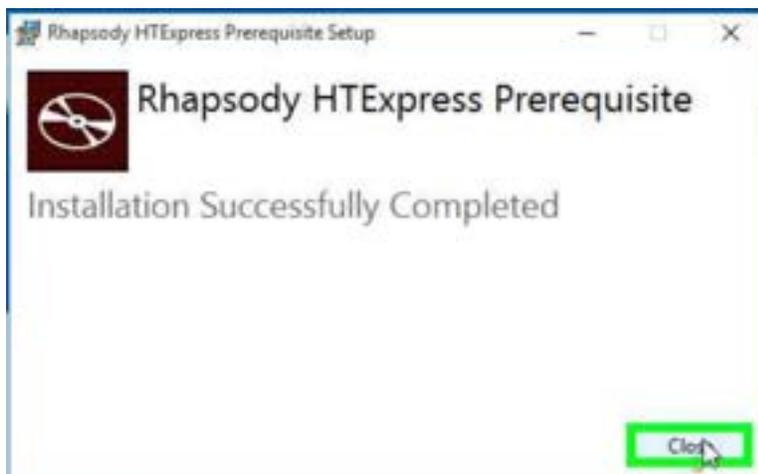
12. Proceed with installation with the default path. Click **Next**.



13. Verify that selected installation options are **Developer** for Profile and **USB** for the Interface. Click **Install**.



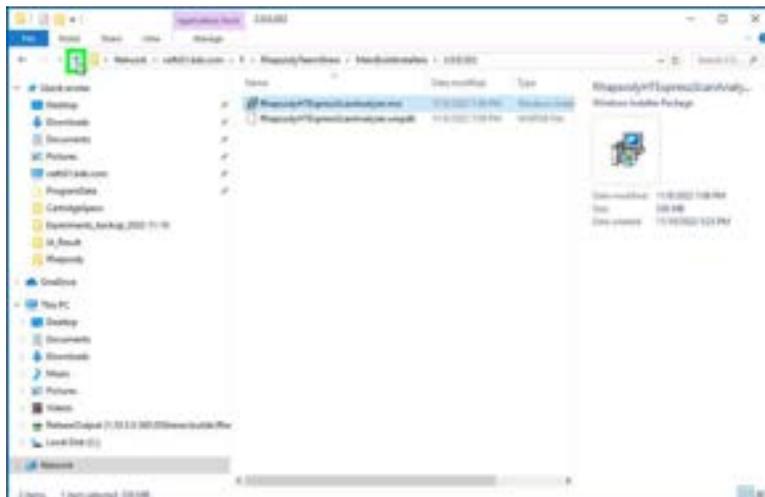
14. Click **Close** on the Prerequisite installer.



## Installing "Rhapsody HTEExpress ScanAnalyzer"

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1. Open the *RhapsodyHTEExpressScanAnalyzer.msi* installer and click **Next**.

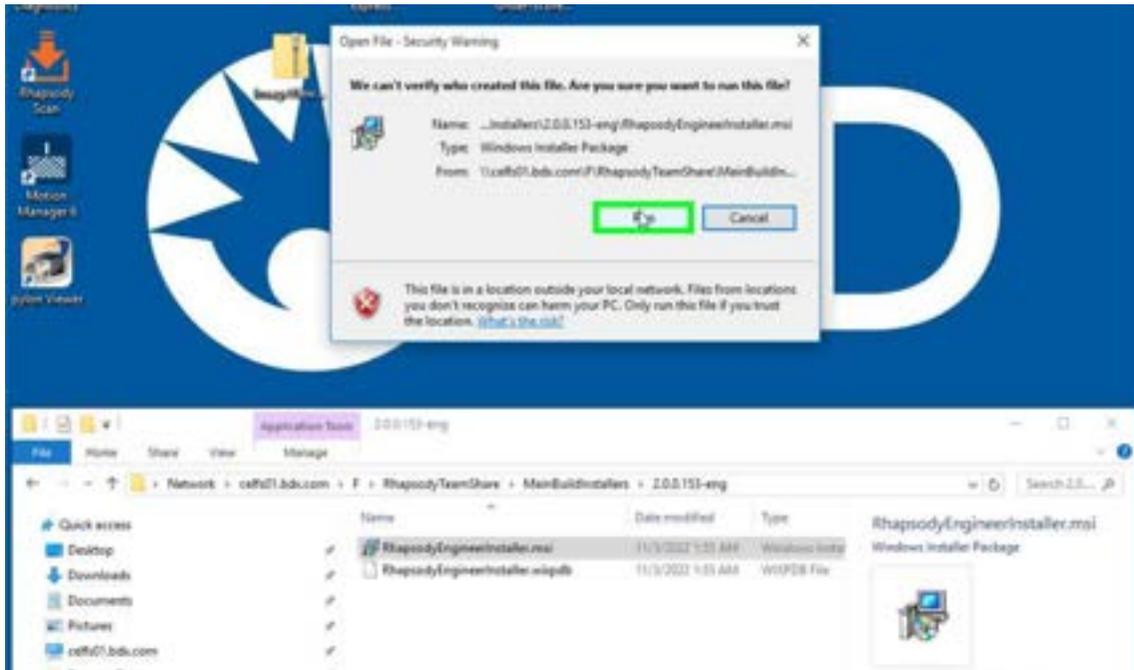


2. Complete installation with the default path and parameters. Click **Next**.

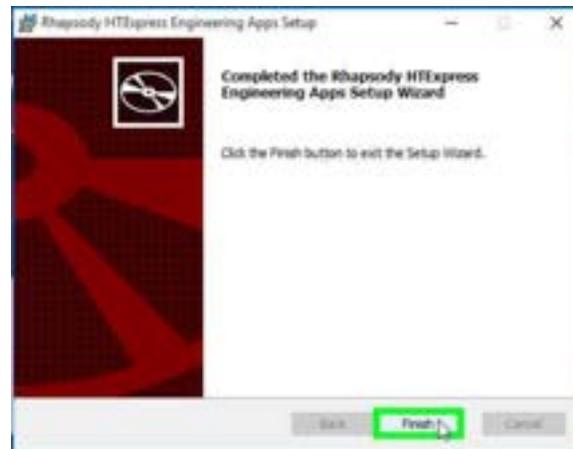


# Installing Engineering app

1. Open the *RhapsodyHTEExpressScanAnalyzer.msi* installer and click **Run**.



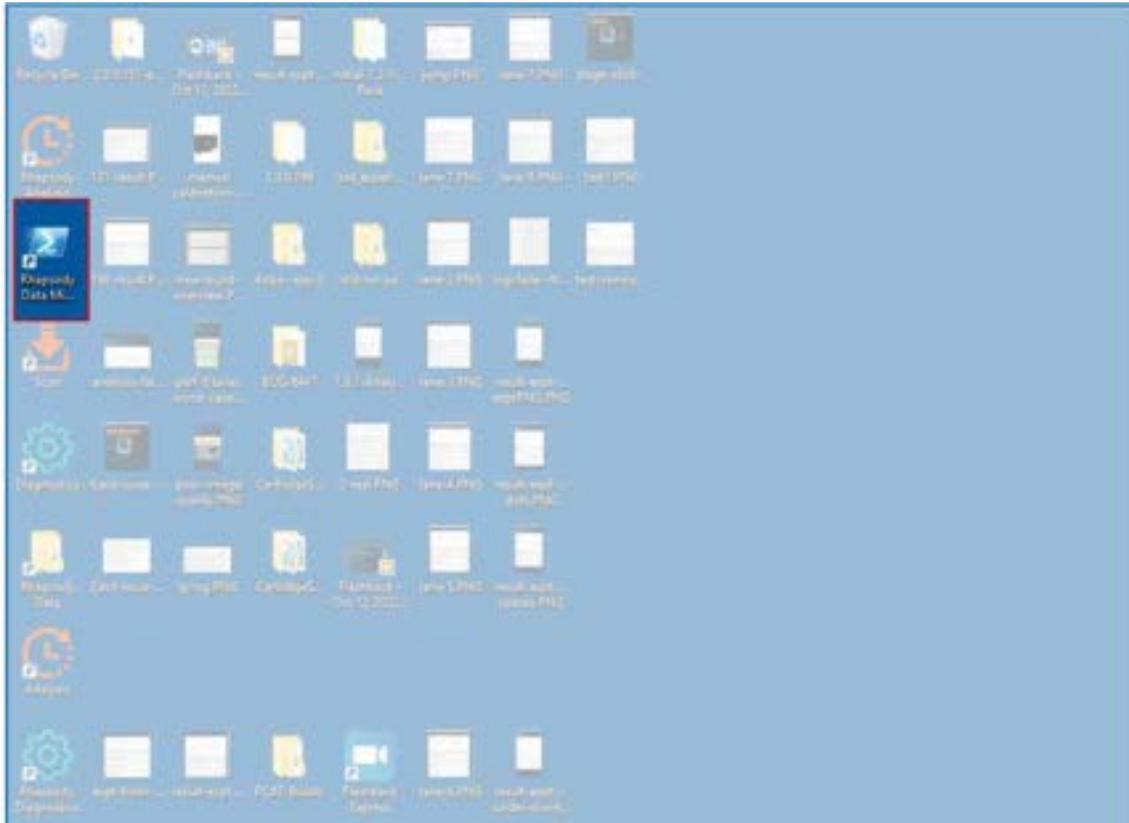
2. Complete the installation. Click **Next** and then **Finish**.



## Migrating data and instrument calibration files

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1. From the desktop, open the **Rhapsody Data Migration** script.

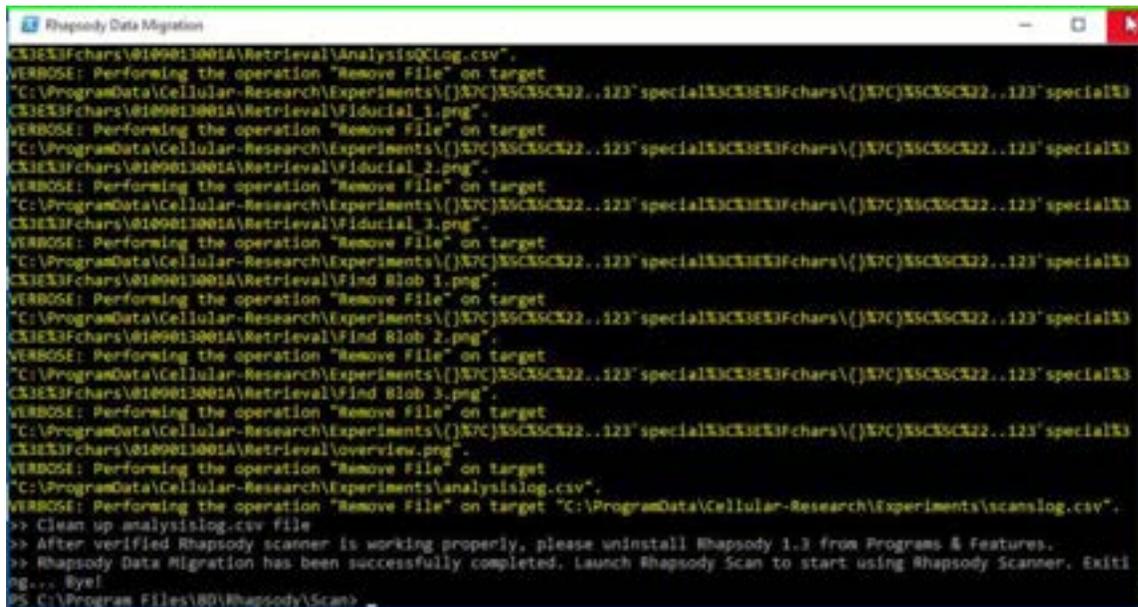


2. In the PowerShell terminal, type **y** and press **Enter** when prompted to confirm the start of Rhapsody Data migration.

```
Rhapsody Data Migration
Windows PowerShell
Copyright (C) 2015 Microsoft Corporation. All rights reserved.

.....
>> Migrating Rhapsody Data from Version 1.3 to 2.0 please wait....
>> Interrogating the system, please wait...
>> Found Rhapsody Installations:
>> @[InstallerName=Rhapsody Scanner - Scan 1.3.0.13; InstallerVendor=BD Genomics; InstallerVersion=1.3.0.13; InstallerM
ajorVersion=1; InstallerMinorVersion=3]
>> @[InstallerName=Rhapsody Scanner - Analysis 1.3.0.13; InstallerVendor=BD Genomics; InstallerVersion=1.3.0.13; Instal
lerMajorVersion=1; InstallerMinorVersion=3]
>> The system has the correct Rhapsody software installed.
>> Do you want to start Rhapsody data migration? [y/n]:
```

3. Wait for the data transfer to be completed and close the PowerShell terminal when the message “Rhapsody Data Migration has been successfully completed” is shown.



```

C:\ProgramData\Cellular-Research\Experiments\AnalysisQCLog.csv",
VERBOSE: Performing the operation "Remove File" on target
"C:\ProgramData\Cellular-Research\Experiments\{X7C}XSCXSCX22..123"specialX3CX3E3Fchars\{X7C}XSCXSCX22..123"specialX3
CX3E3Fchars\@100013001A\Retrieval\Fiducial_1.png".
VERBOSE: Performing the operation "Remove File" on target
"C:\ProgramData\Cellular-Research\Experiments\{X7C}XSCXSCX22..123"specialX3CX3E3Fchars\{X7C}XSCXSCX22..123"specialX3
CX3E3Fchars\@100013001A\Retrieval\Fiducial_2.png".
VERBOSE: Performing the operation "Remove File" on target
"C:\ProgramData\Cellular-Research\Experiments\{X7C}XSCXSCX22..123"specialX3CX3E3Fchars\{X7C}XSCXSCX22..123"specialX3
CX3E3Fchars\@100013001A\Retrieval\Find Blob 1.png".
VERBOSE: Performing the operation "Remove File" on target
"C:\ProgramData\Cellular-Research\Experiments\{X7C}XSCXSCX22..123"specialX3CX3E3Fchars\{X7C}XSCXSCX22..123"specialX3
CX3E3Fchars\@100013001A\Retrieval\Find Blob 2.png".
VERBOSE: Performing the operation "Remove File" on target
"C:\ProgramData\Cellular-Research\Experiments\{X7C}XSCXSCX22..123"specialX3CX3E3Fchars\{X7C}XSCXSCX22..123"specialX3
CX3E3Fchars\@100013001A\Retrieval\Find Blob 3.png".
VERBOSE: Performing the operation "Remove File" on target
"C:\ProgramData\Cellular-Research\Experiments\{X7C}XSCXSCX22..123"specialX3CX3E3Fchars\{X7C}XSCXSCX22..123"specialX3
CX3E3Fchars\@100013001A\Retrieval\overview.png".
VERBOSE: Performing the operation "Remove File" on Target
"C:\ProgramData\Cellular-Research\Experiments\analysislog.csv".
VERBOSE: Performing the operation "Remove File" on target "C:\ProgramData\Cellular-Research\Experiments\scanslog.csv".
>> Clean up analysislog.csv file
>> After verified Rhapsody scanner is working properly, please uninstall Rhapsody 1.3 from Programs & Features.
>> Rhapsody Data Migration has been successfully completed. Launch Rhapsody Scan to start using Rhapsody Scanner. Exiting... Bye!
PS C:\Program Files\BD\Rhapsody\Scan>

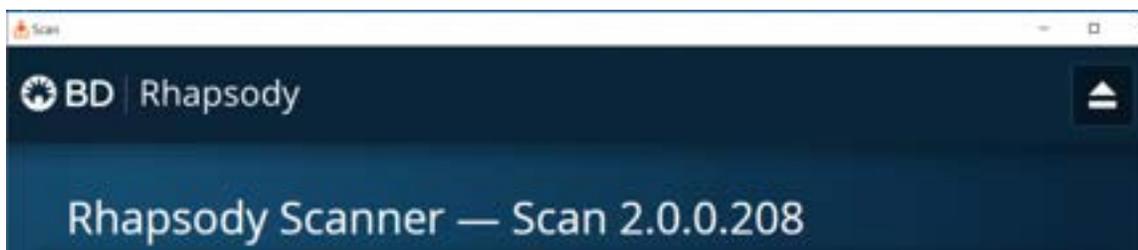
```

## Verifying data migration

1. Open the **Rhapsody Scan** on the desktop.



2. Click **About** and verify that version is 2.0.0 or later.



3. Click **Analysis** and verify that experiment history has items matching what was recorded in the section [Creating back-up for the “SystemConfiguration” folder and record experiments on page 10, item 3.](#)

The screenshot displays the 'History' page in the BD Rhapsody Scanner application. The page is divided into two sections: 'Recent' and 'Previous'. Both sections contain tables with columns for 'Last Modified', 'User', 'Experiment', 'Samples', and 'Status'.

**Recent History:**

Last Modified	User	Experiment	Samples	Status
2022-11-10 17:00:23	Vlad	Exp-US6662-a...	Smp-US6662-a...	Completed
2022-11-10 16:42:57	Vlad	Exp-US6662-a...	Smp-US6662-a...	Completed
2022-11-10 16:28:33	Vlad	Exp-US6662	Smp-US6662-l...	Completed

**Previous History:**

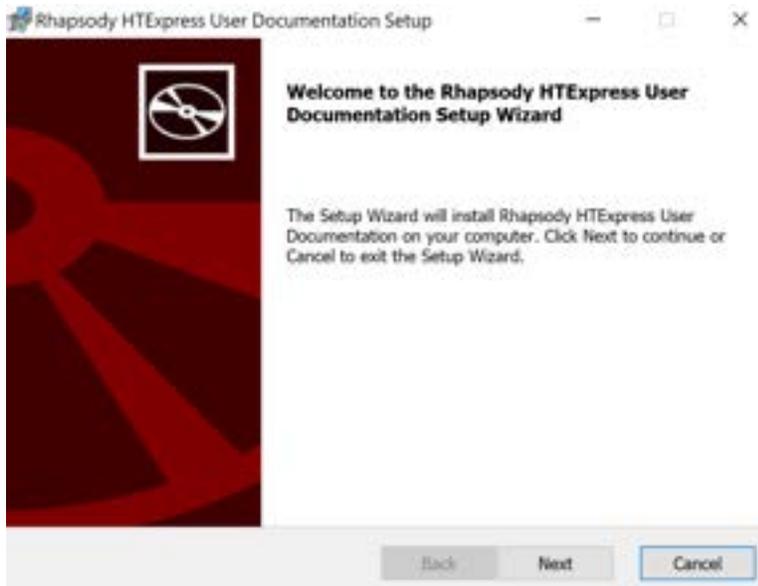
Last Modified	User	Experiment	Samples	Status
2022-11-07 15:22:56	AS	hemo-exp	side-a	Completed
2022-11-07 13:52:17	PD	Test	Test	Completed
2022-09-29 12:15:30	as	0 [W*.123...	0 [W*.123...	Completed
2022-09-29 12:03:36	as	32-chars_23...	123456789012...	Completed
2022-09-27 15:01:07	Test...	EX-2STP	SMP-2STP	Completed
2022-07-29 12:42:30	Aamf...	4stps-exp-2	Sample-300	Completed
2022-01-03 17:42:30	Test...	Exp-4stp-1	Smp-4stp-1	Completed
2019-12-04 10:12:53	AN	D33-180	A	Partial
2019-12-02 14:28:07	ZH	20191202_ZH...	SideA	

The interface includes a search bar at the top right and navigation icons for 'Scan', 'Prepare', and 'About' at the top left. The Windows taskbar is visible at the bottom of the screenshot.

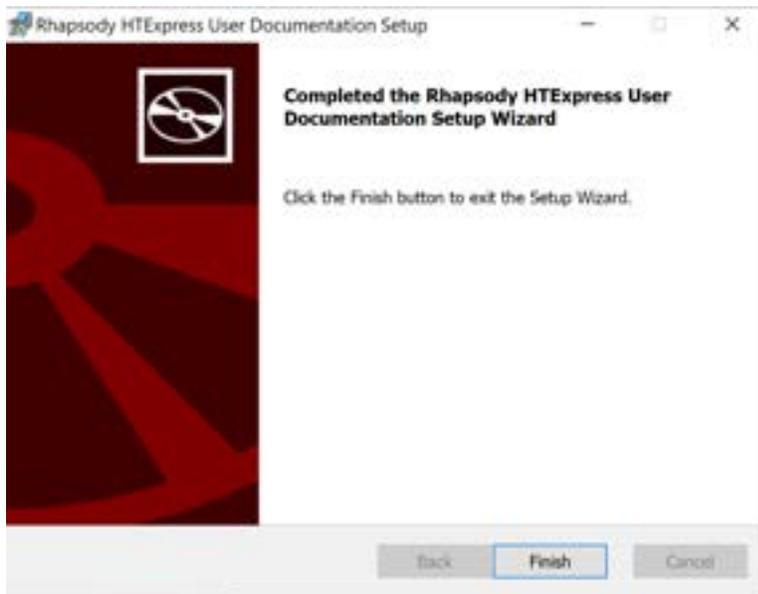
## Installing user documentation

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1. Open *RhapsodyUserDocsInstaller.msi*.
2. Click **Next**.



3. Wait for the installation to be completed and click **Finish**.

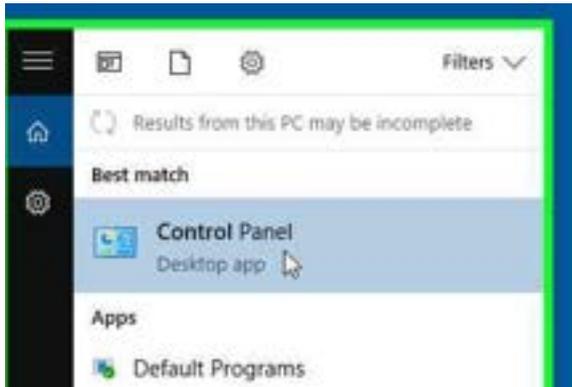


## Uninstalling the BD Rhapsody™ Scanner software for v1.3.1 or earlier

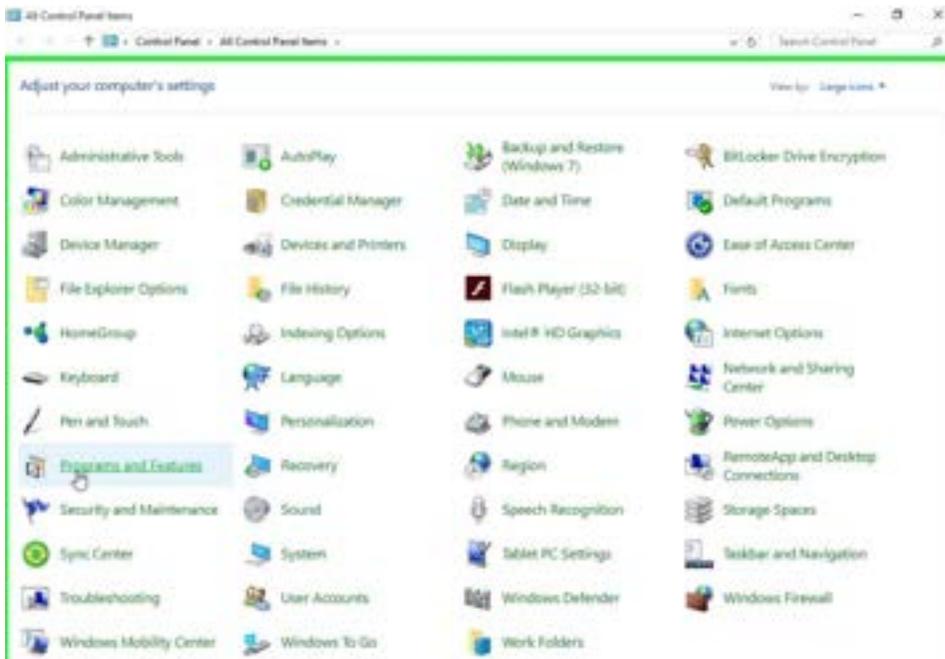
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1. Close the BD Rhapsody Scan App and Analysis App.
2. Open **Control Panel** by navigating to the search on the taskbar and typing *Control Panel*.

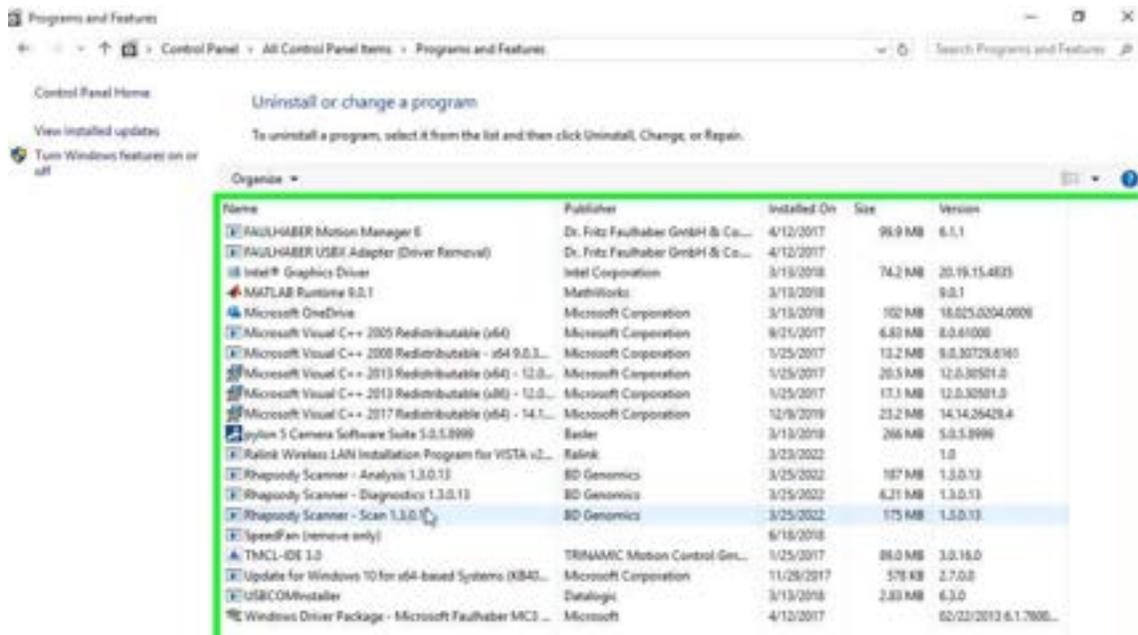
If Control Panel is not listed correctly when searched, open it from **Start Menu > Windows System > Control Panel**.



3. Select **Programs and Features** in the Control Panel.

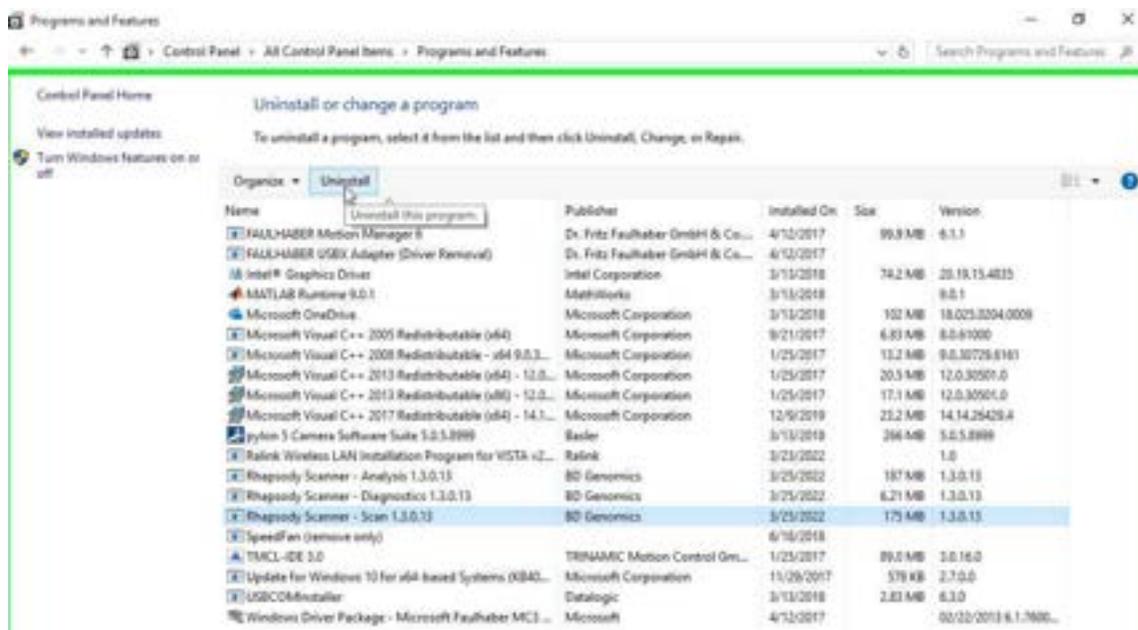


- In Programs and Features, once again verify the versions of all BD Rhapsody™ software. If they are 1.3.0 or 1.3.1, continue with the uninstallation.

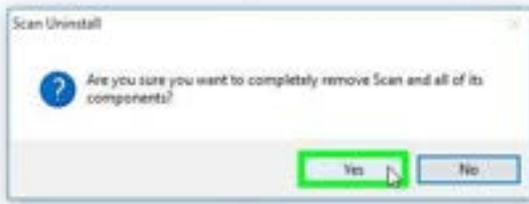


- Select **Rhapsody Scanner - Scan 1.3.1.1** or earlier.

- Click **Uninstall**. In the warning dialog, click **Uninstall** again. A user Account Control dialog is displayed.



7. Click **Yes** and click **Yes** again in the Scan Uninstall warning dialog.



8. After the uninstall task is complete, click **OK**.



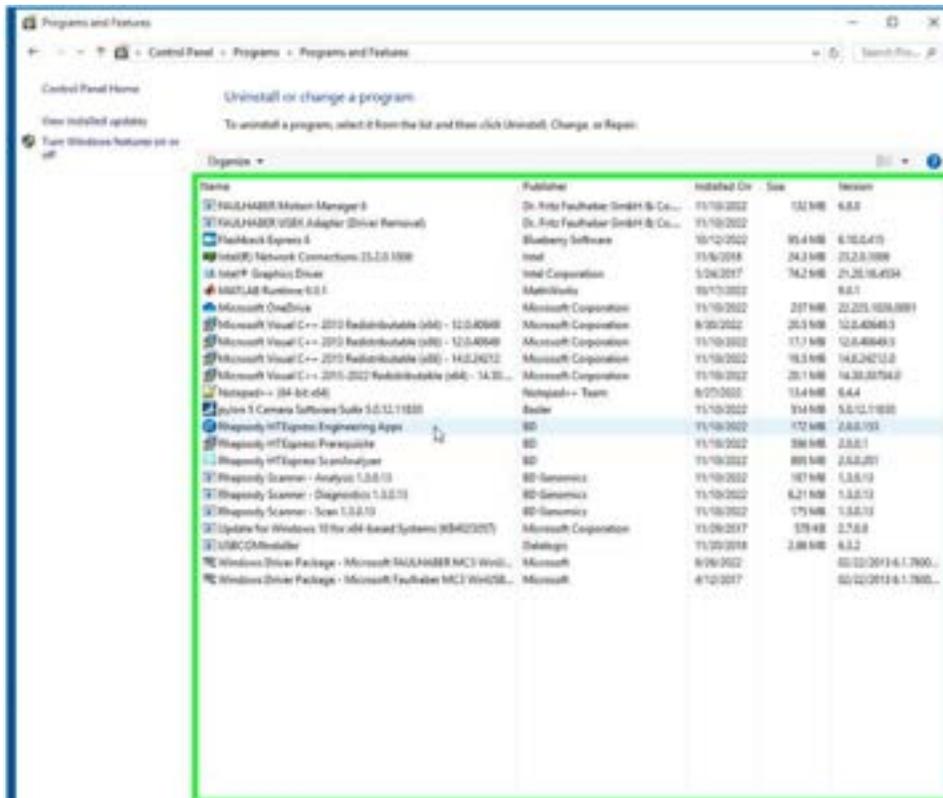
9. Repeat steps 6 - 8 to uninstall **Rhapsody Scanner - Analysis 1.3.1.1** or earlier.



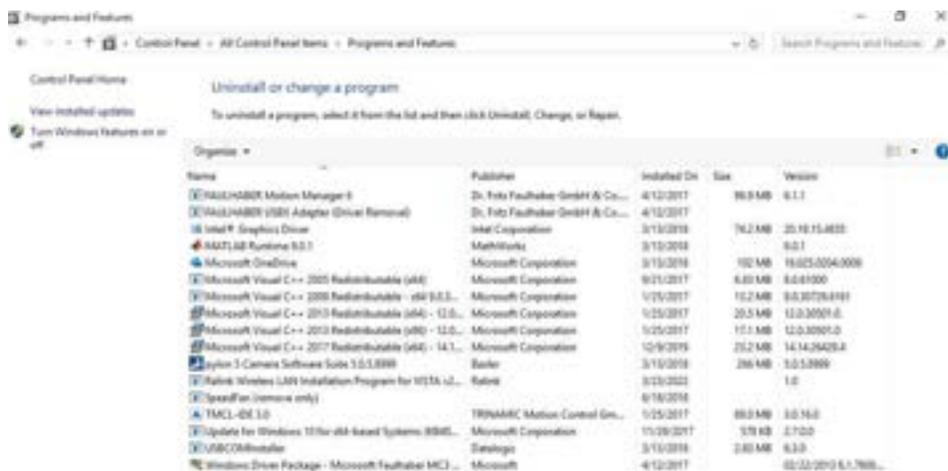
10. If the BD Rhapsody™ Scanner software is v1.3.1.1, repeat steps 6 – 8 to uninstall **Rhapsody Scanner - Diagnostics 1.3.1.1**.



11. Repeat steps 6 – 8 to uninstall Rhapsody HTExpress Engineering Apps (v 2.0.0).



12. Upon completion of the uninstallation for all applications, verify that all BD Rhapsody™ Scanner software 1.3.1.1 (or earlier) is uninstalled and no longer listed.



13. Once confirmed, close the Control Panel window.



## Starting and verifying the BD Rhapsody™ Diagnostics Software

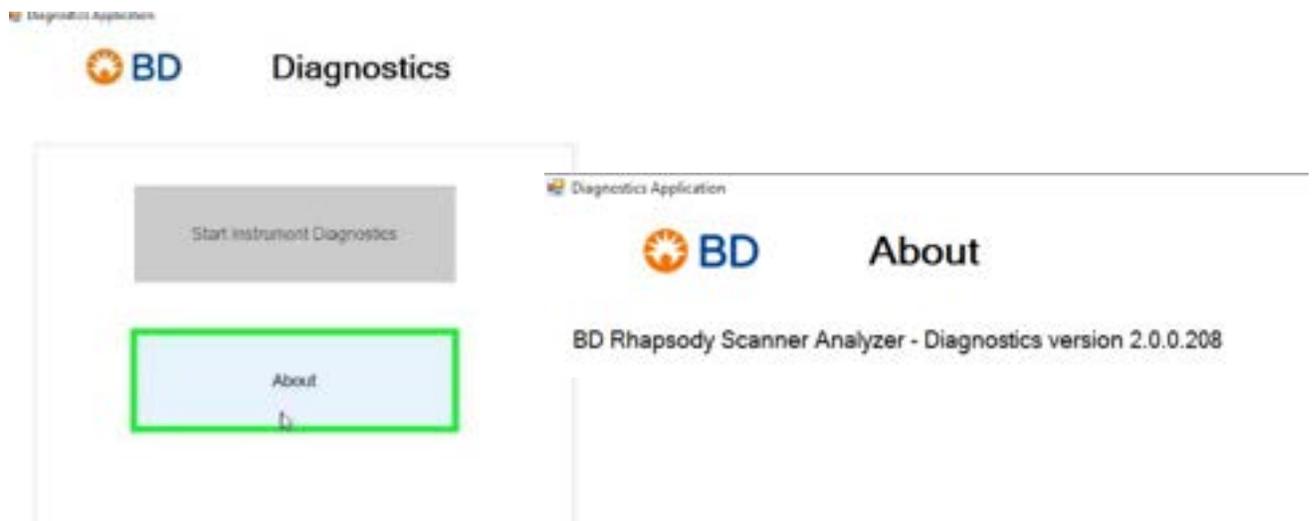
---

Before starting the BD Rhapsody™ Diagnostic Application Scanner software, ensure that the Scan application is not running.

1. **Close** the BD Rhapsody Scan and Analysis Apps.
2. On the scanner desktop, double-click **Diagnostics**. The Diagnostics software home page will be displayed.

**Note:** A successful start is indicated by three green dots at the bottom of the Diagnostics application screen.

3. Select **About** and confirm the Diagnostics software version.



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