

NI MOTION ASSISTANT™ RELEASE NOTES

Version 1.0.2

National Instruments Motion Assistant is a stand-alone prototyping tool for quickly developing your motion applications. Motion Assistant allows you to graphically construct and preview motion applications without writing any code. Once you have perfected your prototype in Motion Assistant, you can export LabVIEW code and code recipes for further application development using NI-Motion.

Introduction

National Instruments Motion Assistant is the graphical prototyping tool for motion control applications. Motion Assistant contains the following features: simple and complex moves, graphical prototyping, and code creation.

Simple and Complex Moves

Motion Assistant offers several move types that represent the most often used moves in motion control. Supported moves include the following:

- Reference moves
- Straight-line moves
- Arc moves
- Contouring moves

Reference moves include home and index moves. Straight-line moves create simple point-to-point movement for basic motion applications. Arc moves enable circular, three-dimensional, and helical arc types. Contouring moves allow any trajectory specified by a series of coordinates.

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Graphical Prototyping

Motion Assistant is a fully graphical interface that allows you to prototype your motion application by creating a series of moves. The position, velocity, and acceleration of your moves are all graphed and editable in two and three dimensions.

Code Creation

Once you have created the prototype of your motion control application, you can use the Motion Assistant code creation feature to export LabVIEW code for completing your application in LabVIEW or code recipes to follow for coding your application in a text language like C, C++, or Visual Basic.

Motion Assistant also creates placeholders in your LabVIEW code or code recipes for non-motion code, such as data or image acquisition, wherever you specify.

Changes and Improvements

Motion Assistant now supports virtual motion controllers and features a new software evaluation license system.

- Virtual motion controllers—Motion Assistant now supports virtual motion controllers created in MAX for evaluating the Motion Assistant software. With virtual motion controllers you can create, edit, and preview motion scripts without any motion control hardware. In addition, you can generate LabVIEW code or code recipes for text-based programming languages. However, you must have a physical motion controller to run your motion scripts.
- Evaluation system—If you are using an evaluation version of Motion Assistant, you may upgrade to the full version by purchasing Motion Assistant and entering a code that unlocks the software.

Compatibility Issues

Motion Assistant is compatible with NI-Motion 5.1.1 and later. Code creation using Motion Assistant requires LabVIEW 6.1 or later.

Motion Assistant requires one of the following motion controllers be installed in your computer to use all of the features:

- 7344 (all features)
- 733x (reference and straight-line move features)
- 7342 (reference and straight-line move features)

Using Motion Assistant Without Hardware

If you do not have one of the listed motion controllers, you can still preview the functionality of Motion Assistant by adding a virtual motion controller in Measurement & Automation Explorer (MAX). Even though the virtual motion controller is not physically present in your computer, adding one to MAX allows Motion Assistant to simulate your motion prototype.



Note You must have NI-Motion 5.2 or later installed to use a virtual motion controller.

Follow the instructions in the *Motion Assistant Online Help* to install a virtual motion controller.

Installation

Install the NI-Motion driver software before installing Motion Assistant.

Complete the following steps to install Motion Assistant:

1. Insert the Motion Assistant CD into your CD-ROM drive.
The CD automatically shows the Motion Assistant installation screen.
2. If you do not have NI-Motion 5.1.1 or later installed, click **NI-Motion 5.2 Installation** to install NI-Motion. This will also update any previous version of the driver software.
3. Click **Motion Assistant 1.0.2 Installation** to install Motion Assistant.
4. If you want virtual motion controllers installed, click **Create Virtual Motion Controllers**.
5. Refer to the `ReadMe.txt` file after the installation is complete for last-minute information not contained in this document.

Software Updates

You can find Motion Assistant updates and patches when they become available by visiting ni.com/motion.

Obtaining a License

Do the following to obtain the necessary key code to activate the full version of Motion Assistant:

1. Select **Start»Programs»National Instruments»NI License Manager** to launch the National Instruments License Manager utility.
2. Click the + symbol to expand the Software Licenses category. Expand the tree items until NI Motion appears in the list.

3. Right-click **NI Motion Assistant** and click **Activate License**.
4. Follow the on-screen instructions to activate NI Motion Assistant.
5. Use the serial number included with your copy of Motion Assistant to obtain the key code.



Note Do not lose your key code. It is required for activating your licensed copy of Motion Assistant. National Instruments recommends you make a backup copy of your key code and store it in a secure location.

Using the Online Manuals

The Motion Assistant software documentation is installed as a Windows help file and is embedded into the application for your convenience. These release notes are also installed as an Adobe Portable Document File (PDF).



Note If you do not already have Acrobat Reader 4.0 or later installed on your system, you can install version 5.0 from the Motion Assistant CD. Run the `rp505env.exe` file found in the `Extras\Acrobat` directory on your CD.

Click any entry in the table of contents to jump directly to the corresponding manual page. You can jump to major sections within each document quickly and easily by clicking the bookmarks.

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