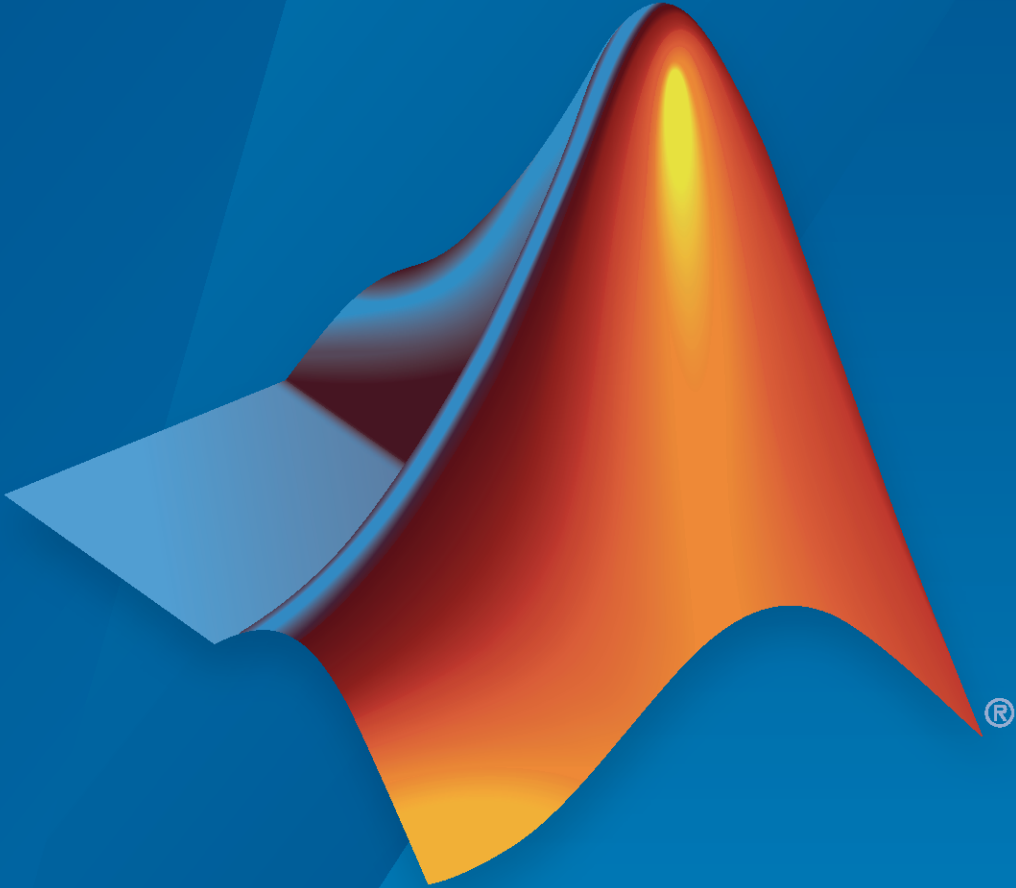


# RoadRunner Release Notes



## How to Contact MathWorks



Latest news: [www.mathworks.com](http://www.mathworks.com)  
Sales and services: [www.mathworks.com/sales\\_and\\_services](http://www.mathworks.com/sales_and_services)  
User community: [www.mathworks.com/matlabcentral](http://www.mathworks.com/matlabcentral)  
Technical support: [www.mathworks.com/support/contact\\_us](http://www.mathworks.com/support/contact_us)



Phone: 508-647-7000



The MathWorks, Inc.  
1 Apple Hill Drive  
Natick, MA 01760-2098

### *RoadRunner Release Notes*

© COPYRIGHT 2020 by The MathWorks, Inc.

The software described in this document is furnished under a license agreement. The software may be used or copied only under the terms of the license agreement. No part of this manual may be photocopied or reproduced in any form without prior written consent from The MathWorks, Inc.

FEDERAL ACQUISITION: This provision applies to all acquisitions of the Program and Documentation by, for, or through the federal government of the United States. By accepting delivery of the Program or Documentation, the government hereby agrees that this software or documentation qualifies as commercial computer software or commercial computer software documentation as such terms are used or defined in FAR 12.212, DFARS Part 227.72, and DFARS 252.227-7014. Accordingly, the terms and conditions of this Agreement and only those rights specified in this Agreement, shall pertain to and govern the use, modification, reproduction, release, performance, display, and disclosure of the Program and Documentation by the federal government (or other entity acquiring for or through the federal government) and shall supersede any conflicting contractual terms or conditions. If this License fails to meet the government's needs or is inconsistent in any respect with federal procurement law, the government agrees to return the Program and Documentation, unused, to The MathWorks, Inc.

### **Trademarks**

MATLAB and Simulink are registered trademarks of The MathWorks, Inc. See [www.mathworks.com/trademarks](http://www.mathworks.com/trademarks) for a list of additional trademarks. Other product or brand names may be trademarks or registered trademarks of their respective holders.

### **Patents**

MathWorks products are protected by one or more U.S. patents. Please see [www.mathworks.com/patents](http://www.mathworks.com/patents) for more information.

## R2020b

<b>RoadRunner Scene Builder: Automatically generate 3D road models from HD maps</b> .....	1-2
<b>Road Speed Limits Tool: Set varying speed limits along roads</b> .....	1-2
<b>Bridge Span Creation: Fix bridge spans formed on elevated roads</b> .....	1-2
<b>Project Props to Terrain: Align prop curves with the surface terrain</b> ....	1-2

## R2020a+

<b>RoadRunner Editor: Interactive editor to model roads and 3D environments</b> .....	2-2
<b>Intersections: Design complex intersections featuring merges, splits, and traffic circles</b> .....	2-2
<b>Surface Damage: Add detailed road surfaces with lane markings, stencils, and custom graphics</b> .....	2-2
<b>RoadRunner Asset Library: Library of prebuilt professionally created assets</b> .....	2-2
<b>Customize Road Signs: Combine text and graphics to build custom signs</b> .....	2-2
<b>Traffic Signals: Edit signal phases and timing with the integrated signal timeline and interactive controls</b> .....	2-2
<b>GIS Import: Import aerial imagery, elevation data, lidar point clouds, and road maps to accurately represent physical locations in RoadRunner</b> .....	2-2
<b>OpenDRIVE Import and Export: Import and export road networks using OpenDRIVE format</b> .....	2-2
<b>Export to Apollo</b> .....	2-2
<b>Export to Universal Scene Description (USD)</b> .....	2-3

<b>Export for Metamoto simulations</b> .....	<b>2-3</b>
<b>Import from OpenDRIVE improved</b> .....	<b>2-3</b>
<b>Export to OpenDRIVE improved</b> .....	<b>2-3</b>
<b>Improved support for GIS assets</b> .....	<b>2-3</b>
<b>Vector-type scaling</b> .....	<b>2-3</b>

# R2020b

---

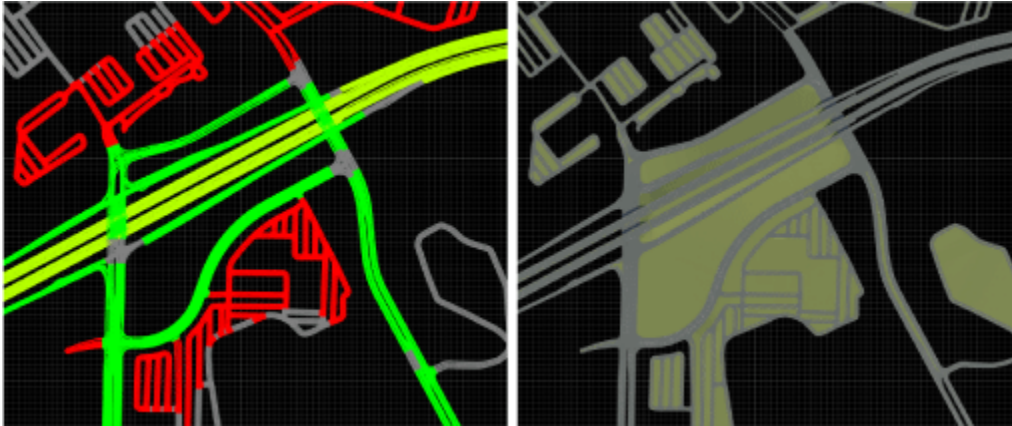
**Version: 1.1**

**New Features**

**Bug Fixes**

## RoadRunner Scene Builder: Automatically generate 3D road models from HD maps

Use RoadRunner Scene Builder to import roads from HERE HD Live Map data.



Edit the imported roads using RoadRunner and export the results to supported simulation and game engine formats.

### Road Speed Limits Tool: Set varying speed limits along roads

Use the “Road Speed Limits Tool” to set varying speed limits along sections of a road. When you export your scene to a simulator, you can use these values to test whether vehicles drive the set speed limits.

### Bridge Span Creation: Fix bridge spans formed on elevated roads

In the “Road Construction Tool”, use the **Auto Assign Bridges** button to form bridge spans along elevated roads. Use this tool to fix bridges in scenes where one road is elevated above another road.

### Project Props to Terrain: Align prop curves with the surface terrain

In the “Prop Curve Tool”, use the **Project to Terrain** option to align props and extrusions with the surface terrain rather than with the curve that you create. When you create prop curves, this option is selected by default.

# R2020a+

---

**Version: 1.0**

**New Features**

## **RoadRunner Editor: Interactive editor to model roads and 3D environments**

For details, see User Interface.

## **Intersections: Design complex intersections featuring merges, splits, and traffic circles**

For details, see Road Plan Tool.

## **Surface Damage: Add detailed road surfaces with lane markings, stencils, and custom graphics**

For details, see Surface Tool.

## **RoadRunner Asset Library: Library of prebuilt professionally created assets**

For details, see RoadRunner Asset Library.

## **Customize Road Signs: Combine text and graphics to build custom signs**

For details, see Sign Tool.

## **Traffic Signals: Edit signal phases and timing with the integrated signal timeline and interactive controls**

For details, see Signal Tool.

## **GIS Import: Import aerial imagery, elevation data, lidar point clouds, and road maps to accurately represent physical locations in RoadRunner**

For details, see GIS Data Resources for RoadRunner.

## **OpenDRIVE Import and Export: Import and export road networks using OpenDRIVE format**

For details, see Importing OpenDRIVE Files and Exporting to OpenDRIVE.

## **Export to Apollo**

RoadRunner can export road scenes to Baidu Apollo® formats. You can export to Apollo 3.0 and 5.0 XML formats and Apollo 5.0 binary format.



---

For details, see [Exporting to Apollo](#).

## **Export to Universal Scene Description (USD)**

You can now export road scenes to USD. For details, see [Exporting to USD](#).

## **Export for Metamoto simulations**

You can now export road scenes for use in Metamoto<sup>®</sup> simulations. For details, see [Exporting to Metamoto](#).

## **Import from OpenDRIVE improved**

Importing OpenDRIVE<sup>®</sup> files is now faster.

Additionally, you can now import:

- Larger OpenDRIVE files
- Road types
- Speed limits
- Multiple road segments as one continuous lane
- Nonnumeric IDs
- Object types

For details, see [Importing OpenDRIVE Files](#).

## **Export to OpenDRIVE improved**

When exporting to OpenDRIVE, you can now export:

- Speed limits
- `laneSection` entries for the same RoadRunner road
- Object types
- U-turns

For details, see [Exporting to OpenDRIVE](#).

## **Improved support for GIS assets**

RoadRunner can now import geographic information system (GIS) data with earth-centric projection information.

For GIS import information, see [Importing GIS Data in RoadRunner](#).

## **Vector-type scaling**

Dragging the **Scale** label on vector types scales all axes uniformly.

