R2018a Update 3 Release Notes

Information about limitations and bugs fixed

R2018a Update 3 contains bug fixes to R2018a.

MathWorks recommends installing the latest update. View available updates at the *R2018a Update downloads site.*

Important Limitations

1. Installation

  - If you add products after installing the Update, you must run the Update installer again to ensure all products are at the same update level.

2. MATLAB Distributed Computing Server, MATLAB Distributed Computing Server for Amazon EC2, and MATLAB Distributed Computing Server - Private Cloud

  - Install the update on both client and worker installations.

3. MATLAB Compiler and MATLAB Compiler SDK

  - After installing the Update, test your deployed applications using the version of the MATLAB Runtime installed on the system of the end-user or MATLAB Production Server.

Bugs Fixed in Update 3

Bug Report	Product	Summary
1729054	MATLAB	Mixed scalar and empty inputs to graph constructor, `digraph` constructor, and `addedge` function return wrong results
1734763	MATLAB	Input command prompt not displayed when invoked from graphics, uimenu, or App designer callbacks
1736067	MATLAB	audioread returns empty matrix when reading certain MP4 files on Windows®
1743659	MATLAB	Live Editor does not open on Windows Server 2016
1753793	MATLAB	Changing the MATLAB path can cause errors when printing or exporting figures or Simulink models
1759533	MATLAB	`External component has thrown an exception` error when accessing nested abstract .NET classes
1761213	MATLAB	Invalid MEX-file error using Fortran MEX files built in R2006a and earlier
1765603	MATLAB	Some MATLAB tools might fail to open on Ubuntu 18.04

Bug Report	Product	Summary
1768487	MATLAB	`svd` with two or three output arguments does not converge for some rare matrices
1769239	MATLAB	MATLAB does not correctly load complex numbers from certain MAT files
1774057	MATLAB	Memory leak in Java engine when a string is returned from MATLAB
1775196	MATLAB	`uidatepicker` is positioned out of view in tab and panel
1725879	Embedded Coder	Code generation fails for models which use symbolic dimension with leading or trailing 1-s in the specification
1740170	Embedded Coder	Unnecessary include of `Rte_Type.h` in *model_types.h*
1744182	Embedded Coder	**Incorrect Code Generation:** Uninitialized local variables generated with Variant Subsystem when `CombineOutputUpdateFcns` is selected in **Configuration Parameters**
1754608	Embedded Coder	MATLAB crashes when XCP external mode simulation with execution-time profiling fails
1765892	Embedded Coder	Misleading error message for coder dictionaries that are incompatible with current release
1774427	Embedded Coder	**Incorrect Code Generation:** Code/simulation mismatch when Simulink Function is in an algebraic loop
1784128	Embedded Coder	Shared header file does not include necessary Simulink. AliasType header files
1740241	GPU Coder	**Incorrect Code Generation:** Running the code generated from a SegNet network produces incorrect results
1740548	GPU Coder	**Incorrect Code Generation:** GPU Coder creates a kernel with uninitialized variables under certain conditions
1741614	GPU Coder	GPU coder does not recognize custom files with the .hpp or .cu extension when using the `codegen`command
1742368	GPU Coder	MATLAB crashes when a parallel for-loop has variable bounds and requires large local memory exceeding the threshold
1748561	GPU Coder	Code generation from deep learning networks for TensorRT INT8 target errors out
1762344	GPU Coder	Missing explicit link for makefile generated by `cnncodegen` command when generating code for Intel MKL-DNN targets

Bug Report	Product	Summary
1744391	HDL Coder	HDL Code Generation Report displays Japanese comments incorrectly in the generated code
1752107	HDL Coder	**Incorrect Code Generation:** Incorrect HDL code generated when using clock-rate pipelining optimization
1788943	Instrument Control Toolbox	UDP Receive block error: `Too many input arguments`
1769989	MATLAB Report Generator	`mlreportgen.reporter.Figure` reporter always uses default font size when creating figure snapshot
1776471	MATLAB Report Generator	`Report.getReportLayout` returns wrong layout
1765534	Neural Network Toolbox	Slow training and prediction when using 'DispatchInBackground' in an `augmentedImageDatastore`constructed from a large `ImageDatastore`
1786823	Powertrain Blockset	SI and CI dynamometer reference application Generate Mapped Engine from Spreadsheet produces incorrect torque lookup tables
1787582	Powertrain Blockset	Drive Cycle Source block does not retain the **Drive cycle source** setting after you save and reopen the model
1759519	Predictive Maintenance Toolbox	Degradation-based RUL estimators generate incorrect result for remaining useful life (RUL)
1762795	Simscape	Simscape model throws an error that 'SimscapeLogToSDI' parameter is not present in the model
1757746	Simulink	**Incorrect Code Generation:** Incorrect parentheses and incon-sistent relational/logical conditions with Inline Variant blocks
1769148	Simulink	Models containing Variant blocks may take long time to update
1781498	Simulink	Simulink dependency analysis does not return results for files with a corresponding SLMX file that is not on the MATLAB path
1792314	Simulink	Display of the psia and psig units is incorrect in the Simulink Editor
1778360	Simulink Check	Customized edit-time checks might flag all blocks if any of the naming checks are in the configuration
1722468	Simulink Coder	Compiler warnings due to a missing cast from pointer-to-const to pointer

Bug Report	Product	Summary
1737827	Simulink Coder	Incorrect Code Generation: Incorrect behavior for the code generated for a Probe block whose input has a constant sample time
1740430	Simulink Coder	Code generator triggers software assertion for models that include a Simulink function that calls another Simulink function
1744653	Simulink Coder	Error when generating code that incorrectly says there are unsaved changes
1766185	Simulink Design Verifier	Simulink Design Verifier may take longer time than the specified **Maximum analysis time**
1772575	Simulink Design Verifier	Test case extension may cause the analysis to time-out before the **Maximum analysis time**
1781225	Simulink Design Verifier	Intermediate results are not updated in the Informer during SLDV analysis for Design Error Detection and Property Proving modes
1725515	Simulink Desktop Real-Time	Computer shuts down or does not respond when simulating a Simulink Desktop Real-Time model
1771908	Simulink Real-Time	**Incorrect Code Generation:** Silent wrong answer might occur due to sporadic data corruption on the target computer
1759611	Simulink Report Generator	`slreportgen.finder.DiagramElementResult` `getReporter` returns empty reporter for `Simulink.Port` or `Simulink.Segment` object
1773612	Simulink Report Generator	Diagram reporter does not report `Stateflow.SLFunction` subsytem
1773624	Simulink Report Generator	Report API `DiagramElementFinder` fails to find elements in `Stateflow.SLFunction` object
1775100	Simulink Report Generator	`slwebview _ cov` produces errors when generating model Web view
1726105	Simulink Requirements	When importing requirements from ReqIF file, attributes of Enum type are not imported correctly
1742926	Simulink Requirements	`rmidocrename` produces broken URLs when applied to links where destination documents are URLs

Bug Report	Product	Summary
1762643	Simulink Requirements	ReqIF file import fails to import images when embedded as OLE objects
1771070	Simulink Requirements	Generating report for requirements set from default template checks out MATLAB Report Generator license
1738631	Stateflow	**Incorrect Code Generation:** Stateflow absolute time temporal logic incorrectly evaluated for small integer types
1787591	Vehicle Dynamics Blockset	Maneuver reference applications that use the `PassVeh7DOF` bicycle model variant incorrectly calculate tire pressure
1783773	Vehicle Network Toolbox	Syntax error when generating code from CAN Pack block with certain offset and factor values

Update 3 also contains performance improvements for the labeling apps in Computer Vision System Toolbox, and updates the makefile for GPU Coder's Multi-Platform Deep Learning Targeting example.

Bugs Fixed in Update 2 (also fixed in Update 3)

Bug Report	Product	Summary
1755733	MATLAB	imread function returns incorrect data for TIFF images that have half-precision floating-point format
1757132	MATLAB	MATLAB crashes after variable scope change in eval or script and then builtin function call
1762680	MATLAB	Saving objects to MAT files causes memory leak
1768996	MATLAB	Contour plot does not properly update to reflect changes in `ZData` values
1776526	Aerospace Blockset	The Generate Run Script block parameters **Install FlightGear scenery during simulation and Disable FlightGear shader options** are ignored
1746368	Automated Driving System Toolbox	Importing groundTruth labels containing line and rectangle labels results in error
1764690	Computer Vision Toolbox	`estimateStereoBaseline` function returns incorrect results

Bug Report	Product	Summary
1604051	Data Acquisiton Toolbox	Exporting a clock signal from certain National Instruments devices might generate an error
1764718	Econometrics Toolbox	Error when you export variables from Econometric Modeler that overwrite existing variables in the MATLAB Workspace
1689143	Embedded Coder	Compiling the generated code may result in warnings or errors regarding the constness of pointer variables
1735526	Embedded Coder	**Incorrect Code Generation:** Incorrect generated code is possible for variant subsystem with default variant and specific optimization model parameter setting
1755403	Embedded Coder	**Incorrect Code Generation:** Incorrect code is possible for scalar Data Store Memory block value that is read inside reusable subsystem
1772936	Embedded Coder	**Incorrect Code Generation:** Simulink Function blocks that specify shared input/output argument might reuse wrong input in generated code
1758384	Image Processing Toolbox	Error when training `dnCNNLayers` using `denoisingImageDatastore` with Shuffle enabled in `trainingOptions`
1759154	Image Processing Toolbox	`bwskel` with `'MinBranchLength'` option removes unbranched skeleton segments
1761312	Image Processing Toolbox	`bwmorph3` crashes with large inputs
1761999	Image Processing Toolbox	`imwarp` fails for `'cubic'` interpolation of image with data type `logical`
1738190	MATLAB Coder	MATLAB crash when running MEX generated with integrity checks disabled
1752037	MATLAB Coder	**Incorrect Code Generation:** Code generated for inpolygon may return wrong answers for nonvector inputs
1736115	MATLAB Compiler SDK	Error when packaging a deployable archive with a function signature file using the Production Server Compiler app
1740309	MATLAB Report Generator	DOM API `HTML` and `HTMLFile` objects incorrectly convert `vertical-align` format
1740425	MATLAB Report Generator	Margin, border, and padding formats corrupt PDF style sheet
1750430	MATLAB Report Generator	Every chapter in a Word report starts on page 1
1762020	MATLAB Report Generator	Nested tables overflow the page

Bug Report	Product	Summary
1745259	Parallel Computing Toolbox	Cluster profile validation fails when using a proxy
1755771	Polyspace Bug Finder	Stray processes after pop-up message: `Failed to connect to the license server. Polyspace will exit now.`
1740766	Simscape Power Systems	Synchronous machine Canay Inductance causes decrease in fault current and affects the speed of the machine in the example model power_machines
1732613	Simulink	Slow performance when selecting the root node of a Simulink Data Dictionary in Model Explorer
1740990	Simulink	Variant Subsystems with export function models as choices might cause build failure
1742439	Simulink	Model with variant subsystem might generate uninitialized local variable in the code with build warnings
1747158	Simulink	`Simulink.VariantManager.convertToVariant` might fail for a block with `Index exceeds array bounds` error
1747732	Simulink	Incorrect variant condition propagation for models with switch blocks and variant bus signals
1748412	Simulink	Error when generating Model Advisor reports in PDF and Word format
1752899	Simulink	During accelerator mode simulation, long string outputs exceeding specified maximum lengths are not truncated
1759627	Simulink	Signal properties are not saved correctly when a model contains multiple Signal Editor blocks
1774330	Simulink	String data type on the output port of FMU Import Block may cause Simulink to crash
1762661	Simulink Design Verifier	Simulink Design Verifier analysis might appear to be frozen for models with many bus inputs
1763741	Simulink Real-Time	Error or exception occurs when MATLAB release version and Simulink Real-Time kernel version do not match
1745051	Simulink Report Generator	System Design Description report for models with requirements might produce Java exception
1748164	Simulink Report Generator	Table title styles for Report API Simulink reporters not applied correctly
1753564	Simulink Report Generator	Figure caption styles for Simulink Report API reporters not applied correctly

Bug Report	Product	Summary
1742125	Simulink Requirements	Simulink linking option missing in RMI dialogs and menus
1768683	Simulink Requirements	Error when importing .reqif or .reqifz files
1771919	Simulink Requirements	Update does not modify "Modified on" of a requirement when only its custom attribute value is changed, thus failing to trigger the change information
1747816	Simulink Test	Incomplete `verify` signal plots in Test Manager
1731060	Stateflow	MATLAB might crash when using temporal operators with different data types
1732013	Text Analytics Toolbox	`normalizeWords("alize")` crashes MATLAB

Update 2 also contains Simulink performance improvements and improved the efficiency of code generated for some models with S-functions.

Bugs Fixed in Update 1

Bug Report	Product	Summary
1704554	MATLAB	Copying to the clipboard stops working in the Live Editor in Windows 10
1734994	MATLAB	`fitsread` returns an error reading character data from certain FITS files
1735712	MATLAB	VideoReader causes MATLAB to crash when reading certain Motion JPEG AVI files on Windows
1742538	MATLAB	Accessing compound HDF5 datasets containing long member names crashes MATLAB
1743528	MATLAB	Unable to install support packages to the default directory on MAC and Linux
1752355	MATLAB	Links for support package documentation missing or broken after installation
1753685	MATLAB	Graphics might not display in figure windows on Linux machines with certain NVIDIA drivers
1742006	Computer Vision System Toolbox	Out-of-memory error when running the Semantic Segmentation Using Deep Learning example
1754814	Database Toolbox	Executing the `exec` function on an Oracle database connection many times eventually leads to a `maximum open cursors exceeded` error

Bug Report	Product	Summary
1748310	Datafeed Toolbox	Bloomberg TimeOut property value is not used, `dateFormat` variable error when executing the Bloomberg `timeseries` function
1745481	Embedded Coder	Embedded Coder Dictionary contents missing from data dictionary when opened in new MATLAB session
1742838	Fuzzy Logic Toolbox	Extrinsic function error when running a model-referenced Fuzzy Logic Controller block in Accelerator, SIL, or PIL simulation mode
1744008	Image Processing Toolbox	`regionprops3` returns incorrect results for `'ConvexImage'`
1739984	Parallel Computing Toolbox	Use of tall arrays and `mapreduce` with MATLAB Parallel Cloud produces an error
1739937	Simulink	Test harnesses and their file dependencies do not appear in the Simulink Project dependency analysis
1741539	Simulink	MATLAB can crash when a submodel contains a constant signal feeding a string block and runs in accelerator mode
1741741	Simulink	Quick Insert does not show list of recommended blocks
1749333	Simulink	Cannot create a new Simulink project using the Simulink start page
1751139	Simulink	Libraries exported to previous version can have broken links
1752328	Simulink	MATLAB can crash during shutdown when data dictionary reference is removed
1753266	Simulink	Output from a model containing a String Constant block can be overwritten by output from other string blocks during simulation
1744872	Simulink Design Optimization	Parameter Estimation tool and Sensitivity Analysis tool do not save sessions with multiple experiments

Bug Report	Product	Summary
1737768	Simulink Real-Time	Initialize block or Terminate block in model produces build error
1742651	Simulink Real-Time	Misleading "must be a valid scope identifier" message from incomplete real-time interrupt configuration
1745385	Simulink Real-Time	Execution of real-time models that contain interrupt triggered function-call subsystems call the hardware start function twice
1714118	Simulink Requirements	Invoking the Update functionality on a Requirement Set that uses custom attributes may lead to the corruption of the Requirement Set file
1752871	Simulink Requirements	Error when selecting a *.reqifz file from the list in Document Import options dialog
1747033	Simulink Test	null is not an object error when opening the Test Sequence editor
1725578	Stateflow	Incorrect results on the second run of Fast Restart for some Stateflow charts
1755918	Symbolic Math Toolbox	Symbolic Math Toolbox hangs after installing Windows 10 Spring Creator Update 2018
1722448	Vehicle Dynamics Blockset	Simulation errors when the MATLAB Drive Connector and 3D Engine are both enabled
1755317	Wavelet Toolbox	Mismatch between ECG Classification example documentation and MATLAB script

Update 1 also contains performance improvements, updates Aerospace Blockset's HL-20 Project example, and adds support for Updates to the Help > Check for Updates dialog.