

MATLAB and Simulink Report Generator Release Notes

Note These Release Notes document both the MATLAB Report Generator 2.1 and the Simulink Report Generator 2.1.

The “MATLAB and Simulink Report Generator 2.1 Release Notes” on page 1-1 describe the changes introduced in the version of the MATLAB and Simulink Report Generators that is in Release 14. The following topics are discussed in these Release Notes:

- “New Features” on page 1-2
- “Upgrading from an Earlier Release” on page 1-4
- “Known Software Problems” on page 1-6

The MATLAB and Simulink Report Generator Release Notes also provide information about recent versions of the product.

- “MATLAB and Simulink Report Generator 2.0 Release Notes” on page 2-1
- “MATLAB and Simulink Report Generator 1.3 Release Notes” on page 3-1
- “MATLAB and Simulink Report Generator 1.2 Release Notes” on page 4-1
- “MATLAB and Simulink Report Generator 1.1 Release Notes” on page 5-1

Printing the Release Notes

If you would like to print the Release Notes, you can link to a PDF version.



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MATLAB and Simulink

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New Features

This section summarizes the new features and enhancements introduced in the Report Generator 2.1 since Version 2.0. This section applies to Simulink Report Generator and MATLAB Report Generator.

For more information, see the following sections:

- “MATLAB Report Generator New Features”
- “Simulink Report Generator New Features”

MATLAB Report Generator New Features

MATLAB Report Generator offers the following new features

- PDF support
 - PDF stylesheet support for custom page headers and footers
 - PDF title page stylesheet customization
- Better support for Japanese and non-English systems
- Scaling and alignment control for high-quality bitmap Handle Graphics images
- Documents without chapters can use full title page information

Simulink Report Generator New Features

Simulink Report Generator offers the following new features

- PDF support
 - PDF stylesheet support for custom page headers and footers
 - PDF title page stylesheet customization
- Better support for Japanese and non-English systems
- Scaling and alignment control for high-quality bitmap Handle Graphics images
- Better integration between the Report Explorer and Simulink
- New Simulink Library Information component
 - Reports on referenced Simulink libraries in the current model, block, or system

- Merge repeated rows in the generated table to save space
- Improved Model Change Log component
 - Control over sort order and date format
- Property for displaying destination and source of a signal
- To provide greater control over report generation, new commands are available to set the model, system, block, or signal reported on by a Simulink component:

```
RptgenSL.getReportedBlock  
RptgenSL.getReportedSystem  
RptgenSL.getReportedModel  
RptgenSL.getReportedSignal
```

```
RptgenSL.setReportedBlock(blkName)  
RptgenSL.setReportedSystem(sysName)  
RptgenSL.setReportedModel mdlName)  
RptgenSL.setReportedSignal(sigHandle)
```

You can use the set commands inside an Evaluate MATLAB Expression component. In an Evaluate MATLAB Expression component, you could enter:

```
RptgenSL.setReportedSystem('f14/Controller')
```

You can use the get commands inside any component that supports %<> notation. For example, in a Paragraph component, you could enter:

```
%<RptgenSL.getReportedBlock>
```

When getting or setting a block, system, or model, the object is identified by its full path string. When setting or getting the signal, the signal is identified by the source block's numeric outport handle. Note that none of the set methods set the current reporting context like a loop.

Note If you are upgrading from a release earlier than Version 2.1, then you should see “New Features” on page 2-2 in the MATLAB and Simulink Report Generator 2.0 Release Notes.

Upgrading from an Earlier Release

This section describes these issues involved in upgrading from the Report Generator 1.3 to Version 2.1.

Version 2.0 of Report Generator offered a new interface that encompasses all Report Generator functionality. For more information on using the new interface, see the Report Generator documentation.

The original version of Report Generator is still available and can be accessed via the MATLAB command line. To open the previous version of the Report Generator interface, enter `RptgenML.v1mode(true)` at the command line. To use the new version of the Report Generator interface, enter `RptgenML.v1mode(false)` at the command line.

The previous version switch is session-dependent. To always use the previous version of Report Generator, add `RptgenML.v1mode(true)` to your `startup.m` file.

Note If you have already installed this web release of Report Generator and you install a previous service pack release of MATLAB or Simulink, you must reinstall this web release of Report Generator.

Generating PDF Reports in Japanese

For Japanese PDF support, you must register the file location of a Japanese language font with the Report Generator. If generated PDF documents contain unrecognizable characters, you must register that font. To register a font, use the `setPref` function:

```
RptgenML.setPref('rptgen.body.font.family.fontfile','c:\winnt\fonts\msgothic.ttf');
```

This preference setting persists between sessions and only needs to be set once. If the preference is not set, a warning displays during PDF generation that the font must be set.

Known Software Problems

Report Explorer Appears Blank

While using Report Generator, the Report Explorer might appear blank with no visible content. If this happens, create a new setup file. The list of components or setup files should appear in the Options palette. (210869)

Importing RTF and HTML into PDF Reports

Importing external RTF or HTML files into a PDF document causes a conversion error. No document is produced. (219900)

MATLAB and Simulink

Report Generator 2.0 Release Notes

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New Features

This section summarizes the new features and enhancements introduced in the Report Generator 2.0 since Version 1.3. This section applies to Simulink Report Generator and MATLAB Report Generator.

For more information, see the following sections:

- “MATLAB Report Generator New Features”
- “Simulink Report Generator New Features”

MATLAB Report Generator New Features

MATLAB Report Generator 2.0 offers the following new features

- Updated user interface in which you can
 - View, create, and edit setup files
 - Generate reports
 - Convert XML source files to various outputs, including HTML and RTF
- The %<<varname>> notation imports text with no collapsed representation
- Looping components intrinsically create sections and anchors
- Handle Graphics Property and MATLAB Variable components provide increased control over output formatting
- All summary tables support manual property names and column widths
- Chapter/Subsection can manually set chapter number
- Image component supports captions
- Table component can override collapsed representation
- Title Page component can be used without Chapter components
- New components
 - Axes Loop
 - Axes Snapshot
 - Handle Graphics Object Anchor
 - Handle Graphics Summary Table
 - Object Loop
 - MATLAB Property Table

- Figure Snapshot component supports titles and captions
- Nest Setup File component can import multiple files by name

Simulink Report Generator New Features

Simulink Report Generator offers the following new features

- Updated user interface in which you can
 - View, create, and edit setup files
 - Generate reports
 - Convert XML source files to various outputs, including HTML and RTF
- The %<<varname>> notation imports text with no collapsed representation
- Looping components intrinsically create sections and anchors
- Handle Graphics Property and MATLAB Variable components provide increased control over output formatting
- Simulink Parameter and Stateflow Property components provide increased control over output formatting
- Stateflow Hierarchy Loop component allows searching by property/value pairs
- Model Change Log component can limit revisions by date
- Model Loop component can mix current model looping with specified model names
- Simulink Functions and Variables component (formerly two separate components) can have system or block level scope
- System Loop component can search by property/value pairs
- Documentation component can import HTML and RTF doc
- New components
 - To Workspace Block
 - Requirements Table
 - Stateflow Machine Loop
 - Stateflow Object Loop
 - Stateflow State Loop
 - Stateflow Auto Tabl
 - Stateflow Hierarchy

- Stateflow Property

Note If you are upgrading from a release earlier than Version 1.3, then you should see “New Features” on page 3-2 in the MATLAB and Simulink Report Generator 1.3 Release Notes.

Upgrading from an Earlier Release

This section describes these issues involved in upgrading from the Report Generator 1.3 to Version 2.0.

Version 2.0 of Report Generator offers a new interface that encompasses all Report Generator functionality. For more information on using the new interface, see the Report Generator documentation.

The original version of Report Generator is still available and can be accessed via the MATLAB command line. To open the previous version of the Report Generator interface, enter `RptgenML.v1mode(true)` at the command line. To use the new version of the Report Generator interface, enter `RptgenML.v1mode(false)` at the command line.

Note If you are upgrading from the Report Generator 1.0 to the Report Generator 2.0, then you should see “Upgrading from an Earlier Release” on page 5-7 in the MATLAB and Simulink Report Generator 1.1 Release Notes.

Known Software Problems

Editing Workspace Variable Names in List Component

When editing the workspace variable names in the List component, you must enclose the workspace variable name in single quotes. (216777)

Script Generation Fails for Property Tables

The Generate M-File... option in the Report Explorer creates a script that causes an error if the setup file contains any property table components. The scripts are valid, but the code libraries which they call are broken. (217678)

Report Explorer Appears Blank

While using Report Generator, the Report Explorer might appear blank with no visible content. If this happens, create a new setup file. The list of components or setup files should appear in the Options palette. (210869)

MATLAB and Simulink

Report Generator 1.3 Release Notes

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New Features

Note These Release Notes document both the MATLAB Report Generator 1.3 and the Simulink Report Generator 1.3.

This section summarizes the new features and enhancements introduced in the Report Generator 1.3.

If you are upgrading from a release earlier than Release 12.1, then you should see “New Features” on page 4-2 in the MATLAB and Simulink Report Generator 1.2 Release Notes.

MATLAB Report Generator New Features

Enhancements to Formatting Components

Component	Purpose
Cell Table	You can now specify table column widths.

Enhancements to Report Generator Components

Component	Purpose
Import File	You can now import formatted text from RTF and HTML source files.

Simulink Report Generator New Features

Report Generator now supports Stateflow Notes.

New Simulink Component

Component	Purpose
Block Type: Documentation	Inserts text extracted from Doc Blocks in Simulink models

Enhancements to Simulink Components

Component	Enhancement
Block Type: Scope Snapshot	Improved viewing of multiple black and white traces
System Snapshot	<p>You can now specify titles for the diagrams.</p> <p>You can now specify the size of the diagrams.</p>
Block Type: Look-Up Table	You can now report on the Pre-Lookup table.

Enhancements to Stateflow Components

Component	Enhancement
Stateflow Snapshot (chart)	You can now specify titles for the diagrams.

Upgrading from an Earlier Release

There are no upgrade issues moving from the Report Generator 1.2 to the Report Generator 1.3.

If you are upgrading from the Report Generator 1.0 to the Report Generator 1.3, then you should see “Upgrading from an Earlier Release” on page 5-7 in the MATLAB and Simulink Report Generator 1.1 Release Notes.

MATLAB and Simulink Report Generator 1.2 Release Notes

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New Features

Note These Release Notes document both the MATLAB Report Generator 1.2 and the Simulink Report Generator 1.2.

This section introduces the new features and enhancements added in the Report Generator 1.2 since the Report Generator 1.1 (Release 12.0).

Simulink Report Generator New Features

Block Type: Look-Up Table Component Reports on N-D Look-Up Tables

The Simulink Report Generator 1.2 component Block Type: Look-Up Table allows you to report on the following N-D Simulink look-up tables, in addition to the Look-Up Table and Look-Up Table (2-D) that were supported in earlier releases:

- Look-Up Table (n-D)
- Direct Look-Up Table (n-D)

Note that the table created for the N-D data is a 2-D slice through the N-D data.

Real-Time Workshop Requirement Removed for Some Components

The **By simulation order** option for sorting blocks no longer requires having the Real-Time Workshop product installed. The components affected by the removal of the Real-Time Workshop requirement for this option are:

- Block Loop
- Chart Loop
- Fixed-Point Block Loop
- Object Summary Table

Also, the Block Execution Order component no longer requires Real-Time Workshop.

Image Titles for Snapshot Components

You can add titles to images for the System Snapshot and Stateflow Snapshot (chart) components. This is in addition to the caption option that was available in earlier releases.

Upgrading from an Earlier Release

There are no upgrade issues moving from the Report Generator 1.2 to the Report Generator 1.3.

If you are upgrading from the Report Generator 1.0 to the Report Generator 1.3, then you should see “Upgrading from an Earlier Release” on page 5-7 in the MATLAB and Simulink Report Generator 1.1 Release Notes..

MATLAB and Simulink Report Generator 1.1 Release Notes

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New Features

Note These Release Notes document both the MATLAB Report Generator 1.1 and the Simulink Report Generator 1.1.

This section introduces the new features and enhancements added in the MATLAB Report Generator 1.1 since the MATLAB Report Generator 1.0 (Release 11.0).

MATLAB Report Generator New Features

New MATLAB Components

The MATLAB Report Generator 1.1 includes the following three new components.

Component	Purpose
Comment	Inserts a comment into the SGML source file created by the report generation process
MATLAB/Toolbox Version Number	Creates and inserts a table that shows the version number, release number, and/or release date of any MathWorks software you are currently using
Stop Report Generation	Halts report generation

Enhancements to MATLAB Components

The following components have been enhanced for Release 12:

- You can now put an image on a title page. See the Title Page component reference section for details.
- The Nest Setup File component now has a recursion limit.
- The For Loop component now allows a vector of indices.

Property Table Enhancement

For all property tables, you can now use a context menu to add rows above or below the current cell and add columns to the left or right of the current cell.

Summary Table Enhancement

For all summary tables, you can now use embedded looping components for table item generation.

Using MATLAB Variables with Components

You can enter %<VariableName> in any component field where the text appears blue to include the value of a variable from the MATLAB workspace. You cannot enter more than one variable in the %<>. If you enter an invalid variable name, then the report will contain %<VariableName> instead of the value of the variable.

This %<VariableName> syntax is supported for the following components:

- Image
- Link
- Report Options
- Text
- Variable Table

Example. If you enter the following

```
I have a %<ObjName> and it has %<NumLeaves> leaves. The word
'%<ObjName>' has %<size(ObjName)> letters.
```

and if ObjName='plant' and NumLeaves=3 in the MATLAB workspace, then the report will contain the following.

```
I have a plant and it has 3 leaves. The word 'plant' has 5 letters.
```

Simulink Report Generator New Features

New Simulink Components

The Simulink Report Generator 1.1 includes the following new Simulink components.

Component	Purpose
Block Automatic Property Table	Creates a two-column property name/property value table
Block Type: Bus	Creates a list of all signals exiting from a Bus Selector block
Block Type: Look-Up Table	Reports on one-dimensional and two-dimensional look-up table blocks
Model Change Log	Uses a reported model's ModifiedHistory parameter to construct a model history table that displays information about each logged revision to the model

New Stateflow Components

The Simulink Report Generator 1.1 includes the following new Stateflow components.

Component	Purpose
Chart Loop	Runs its children for each Stateflow chart that you choose
Stateflow Linking Anchor	Designates a location to which other links point (for use with Stateflow)
Stateflow Name (Chart)	Inserts the name of the Stateflow object specified by its parent component into the report

New Fixed-Point Components

The following components have been added to the Simulink Report Generator 1.1 to support the Fixed-Point Blockset 3.0.

Component	Purpose
Fixed-Point Block Loop	Runs its children for the Simulink model, system, or signal defined by its parent component; for example, if the Fixed-Point Block Loop is parented by the Simulink Model Loop, it will run its children for all fixed-point blocks in the Simulink model.
Fixed-Point Logging Options	Sets fixed-point options similar to those set in the Fixed-Point Blockset Interface GUI
Fixed-Point Property Table	Inserts a property name/property value table for a fixed-point block
Fixed-Point Summary Table	Shows properties or parameters of the selected fixed-point blocks in a table

Enhancements to Simulink Components

The following components have been enhanced for Release 12.

Component	Enhancement
Block Loop	You can create a loop list manually.
Object Report	New box object added
Block Type: Scope Snapshot	You can add captions.
Signal Loop	You can remove input/output/internal signals from a loop.
Stateflow Snapshot (chart)	You can turn off callouts.

Component	Enhancement
System Hierarchy	New list style (bulleted or numbered) control added
System Loop	You can loop on a manually created list of systems
System Snapshot	You can add captions.

Upgrading from an Earlier Release

This section describes the upgrade issues involved in moving from the Report Generator 1.0 to later versions of the Report Generator.

Use of Existing SGML Files

If you generated a report using the MATLAB Report Generator 1.0 and saved the report file as an SGML file, and then you try to convert that SGML file using the Report Generator 1.3 `rptconvert` program, the conversion fails.

In such cases, you need to regenerate the SGML file using the Report Generator 1.3.

