SimMechanics™ Link Release Notes

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SimMechanics™ Link Release Notes

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Summary by Version

This table provides quick access to what's new in each version. For clarification, see "About Release Notes" on page 1.

Version (Release)	New Features and Changes	Version Compatibility Considerations	Fixed Bugs and Known Problems	Related Documentation at Web Site
Latest Version V3.0 (R2008b)	Yes Details	Yes Summary	Bug Reports Includes fixes	Printable Release Notes: PDF Current product documentation

About Release Notes

Use release notes when upgrading to a newer version to learn about new features and changes, and the potential impact on your existing files and practices. Release notes are also beneficial if you use or support multiple versions.

If you are not upgrading from the most recent previous version, review release notes for all interim versions, not just for the version you are installing. For example, when upgrading from V1.0 to V1.2, review the New Features and Changes, Version Compatibility Considerations, and Bug Reports for V1.1 and V1.2.

New Features and Changes

These include

- New functionality

- Changes to existing functionality

- Changes to system requirements (complete system requirements for the current version are at the MathWorks Web site)

- Any version compatibility considerations associated with each new feature or change

Version Compatibility Considerations

When a new feature or change introduces a reported incompatibility between versions, its description includes a **Compatibility Considerations** subsection that details the impact. For a list of all new features and changes that have reported compatibility impact, see the "Compatibility Summary for SimMechanics Link Software" on page 6.

Compatibility issues that are reported after the product has been released are added to Bug Reports at the MathWorks Web site. Because bug fixes can sometimes result in incompatibilities, also review fixed bugs in Bug Reports for any compatibility impact.

Fixed Bugs and Known Problems

MathWorks Bug Reports is a user-searchable database of known problems, workarounds, and fixes. The MathWorks updates the Bug Reports database as new problems and resolutions become known, so check it as needed for the latest information.

Access Bug Reports at the MathWorks Web site using your MathWorks Account. If you are not logged in to your MathWorks Account when you link to Bug Reports, you are prompted to log in or create an account. You then can view bug fixes and known problems for R14SP2 and more recent releases.

The Bug Reports database was introduced for R14SP2 and does not include information for prior releases. You can access a list of bug fixes made in prior versions via the links in the summary table.

Related Documentation at Web Site

Printable Release Notes (PDF). You can print release notes from the PDF version, located at the MathWorks Web site. The PDF version does not support links to other documents or to the Web site, such as to Bug Reports. Use the browser-based version of release notes for access to all information.

Product Documentation. At the MathWorks Web site, you can access complete product documentation for the current version and some previous versions, as noted in the summary table.

Version 3.0 (R2008b) SimMechanics Link Software

This table summarizes what's new in Version 3.0 (R2008b):

New Features and Changes	Version Compatibility Considerations	Fixed Bugs and Known Problems	Related Documentation at Web Site
Yes	Yes—Details labeled as **Compatibility Considerations**, below. See also Summary.	Bug Reports at Web site	Printable Release Notes: PDF Current product documentation

Important items and points related to this new utility are

- "Introduction to SimMechanics Link Utility" on page 3
- "SimMechanics Link Operating System and CAD Platform Support" on page 4
- "Using SimMechanics Link Utility with SimMechanics Software" on page 4
- "Relationship of SimMechanics Link Utility and CAD-to-SimMechanics Translators" on page 5
- "Pro/ENGINEER CAD Translation Case Study" on page 5

Introduction to SimMechanics Link Utility

The new SimMechanics™ Link utility requires only MATLAB®, but is intended for use with SimMechanics software. Separate product documentation and demos are provided for this utility.

The SimMechanics Link utility generates Physical Modeling XML files from external applications such as computer-aided design (CAD) platforms. These Physical Modeling XML files can be used with SimMechanics software to generate SimMechanics models representing mechanical systems.

SimMechanics Link Version Numbers

The SimMechanics Link version numbers are identical, for each MATLAB release, to the parallel SimMechanics version numbers. The versions begin with 3.0.

SimMechanics Link Operating System and CAD Platform Support

The SimMechanics Link utility directly supports these CAD platforms on these operating systems.

CAD Platform	Operating Systems
Pro/ENGINEER®	Windows® 32-bit
SolidWorks®	Windows 32-bit and 64-bit

Custom Interfaces for Combinations Not Directly Supported

For all other combinations of operating systems and CAD platforms (or other external applications), you must write a custom interface to connect to the SimMechanics Link utility. Such custom interfaces are supported on all operating systems that support MATLAB.

See "Creating Custom Links to External Applications" in the *SimMechanics Link User's Guide*.

Using SimMechanics Link Utility with SimMechanics Software

The SimMechanics command mech_import reads Physical Modeling XML files generated by the SimMechanics Link utility to generate SimMechanics models of machines with externally specified data.

Consult the SimMechanics documentation and the *SimMechanics Visualization and Import Guide* for more about SimMechanics models and model generation.

Relationship of SimMechanics Link Utility and CAD-to-SimMechanics Translators

The SimMechanics Link utility replaces the obsolete CAD-to-SimMechanics translators, continuing to support those CAD platforms already supported, Pro/ENGINEER and SolidWorks.

Compatibility Considerations

The SimMechanics Link utility cannot update SimMechanics models that were generated from the old CAD-to-SimMechanics translators. The simplest workaround is to start with the original CAD assembly, export a new Physical Modeling XML file, and import it to generate a new model.

Pro/ENGINEER CAD Translation Case Study

A new CAD translation case study, available from MATLAB Central, demonstrates assembly export and re-export, along with SimMechanics model import and update, using SimMechanics and SimMechanics Link software. The study is based on Pro/ENGINEER and models a double pendulum, subsequently modified to a triple pendulum. The study illustrates how you can update an existing generated CAD-based model with successive changes to the original CAD assembly.

Compatibility Summary for SimMechanics Link Software

This table summarizes new features and changes that might cause incompatibilities when you upgrade from an earlier version, or when you use files on multiple versions. Details are provided in the description of the new feature or change.

Version (Release)	New Features and Changes with Version Compatibility Impact
Latest Version V3.0 (2008b)	See the **Compatibility Considerations** subheading for this new feature: • "Relationship of SimMechanics Link Utility and CAD-to-SimMechanics Translators" on page 5