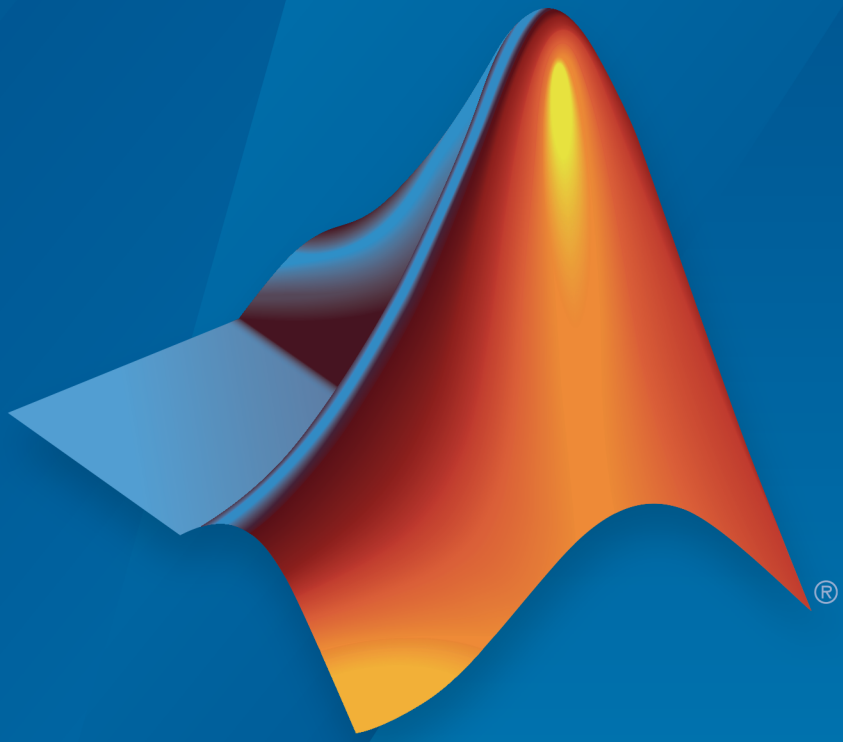
MATLAB® Production Server™ Release Notes



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MATLAB® Production Server™ Release Notes

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R2016a

Version: 2.3

New Features

Bug Fixes

RESTful API and JSON: Develop clients for MATLAB Production Server in any programming language that supports HTTP

The MATLAB® Production Server™ RESTful API enables you to evaluate MATLAB functions on remote servers using JSON representation of MATLAB data types. You can create client programs in any programming language with an HTTP library.

Client code that uses the MATLAB Production Server RESTful API and JSON representation of MATLAB data types can be written in web-based languages such as JavaScript® and embedded in HTML pages. These web pages can then be used to send and retrieve requests from a MATLAB Production Server instance.

For more information, see “RESTful API” and “JSON Representation of MATLAB Data Types”.

R2015b

Version: 2.2

New Features

Bug Fixes

HTTPS for C/C++ Client Library: Provide secure communication for C/C++ client applications

The C/C++ client library utilizes the TLS/SSL standard to provide an HTTPS connection between client applications and the server. HTTPS provides transmission layer encryption as well as configurable options for client and/or server side authentication.

R2015a

Version: 2.1

New Features

Bug Fixes

Server installation as a Windows Service

You can configure a MATLAB Production Server instance to run as a service on Windows. Services can automatically start when a machine is booted.

Development and test framework for MATLAB Production Server for integration with web and enterprise systems

MATLAB Compiler SDK™ includes everything you need to develop client applications for MATLAB Production Server:

- Client APIs execute MATLAB functions on the server.
- Production Server Compiler app tests the integration between clients and compiles MATLAB functions for deployment to the server.
- Test server tests client code and server configuration together.

R2014b

Version: 2.0

New Features

Bug Fixes

C/C++ and Python client libraries for integrating into a broader range of enterprise environments

Client applications can be developed in two additional languages that are broadly used in the larger software community.

R2014a

Version: 1.2

New Features

Bug Fixes

Dynamic invocation API that improves integration with databases and third-party applications

Clients can call MATLAB functions without creating an interface that needs to be recompiled if a function signature changes. The API constructs the function call at runtime.

HTTPS for secure communication with client applications

MATLAB Production Server and the client libraries utilize the TLS/SSL standard to provide an HTTPS connection between client applications and the server. HTTPS provides transmission layer encryption as well as configurable options for client and/or server side authentication.

Program access control based upon client SSL certificates

Access to the MATLAB programs running on MATLAB Production Server can be optionally configured to be restricted based upon information within a client-side SSL certificate.

R2013b

Version: 1.1

New Features

Bug Fixes

HTTPS for secure communication with client applications

MATLAB Production Server and the client libraries utilize the TLS/SSL standard to provide an HTTPS connection between client applications and the server. HTTPS provides transmission layer encryption as well as configurable options for client and/or server side authentication.

Program access control based upon client SSL certificates

Access to the MATLAB programs running on MATLAB Production Server can be optionally configured to be restricted based upon information within a client-side SSL certificate.

R2013a

Version: 1.0.1

Bug Fixes

R2012b

Version: 1.0

New Features

Compatibility Considerations

Production deployment of MATLAB programs without recoding or creating custom infrastructure

MATLAB Production Server runs MATLAB programs as part of your production IT systems, enabling you to incorporate numerical analytics in enterprise applications.

Use MATLAB Compiler™ to package your MATLAB programs, and deploy them on MATLAB Production Server for use by Web, database, and enterprise applications.

For an overview of MATLAB Production Server functionality and features, see the Product Description in the documentation.

Scalable performance and management of packaged MATLAB programs

MATLAB Production Server runs on multiprocessor and multicore servers, providing low-latency processing of many concurrent requests.

You can deploy the product on additional computer servers to increase the number of concurrent requests the system can handle and to provide redundancy. The `auto_deploy` folder on the server is a repository that can be shared across multiple servers for centrally managing your packaged MATLAB programs.

For an overview of the server component of the product, see the Server Overview in the documentation.

For detailed information about server processing, workflow, and related tasks, see the documentation.

Lightweight client library for calling numerical processing programs from enterprise applications

Web, database, and enterprise applications connect to MATLAB programs running on MATLAB Production Server using a lightweight client library. Versions of the client libraries are provided for integration with both Microsoft® .NET Framework and Java® environments and allow the use of native data types when accessing MATLAB programs.

For an overview of the client component of the product, see the MATLAB Production Server Client Overview.

Isolation of MATLAB processes from other system elements

The client library isolates the numerical processing associated with running MATLAB programs from your Web, database, and enterprise application servers. This separation allows you to optimize the performance of your system, as well as enable you to update MATLAB programs without affecting your other applications.

For an overview of the client component of the product, see the MATLAB Production Server Client Overview.

Common infrastructure across Microsoft .NET Framework and Java development environments

MATLAB Production Server client libraries are the only component of the product that is environment-specific. MATLAB programs running on a MATLAB Production Server instance can be accessed by various applications developed or supported by Microsoft .NET Framework or Java.

For detailed information about each client implementation, see Java Client and .NET Client in the documentation.

FLEXlm license management integration

MATLAB Production Server is licensed using FLEXlm® license management software.

For complete information about licensing, see License Management for MATLAB Production Server.

Linux MAN pages

MAN page help, which documents the server commands, is available from the Linux® command line.

Client API documentation

API documentation for Java clients and .NET clients is available at *`$MPS_INSTALL`*`/client`.

MATLAB files must complete execution prior to exiting MATLAB Production Server

The MATLAB file being deployed must finish executing before an instance of MATLAB Production Server can exit.

Unsupported MATLAB data types for client and server marshaling

The following MATLAB data types are not supported by the Java and .NET Client as inputs or outputs for Version 1.0 R2011b+ Beta 2:

- MATLAB function handles
- Complex (imaginary) data
- Sparse arrays

I18N Compliance Restrictions

The following are restrictions on I18N compliance for MATLAB Production Server as of this release:

- MATLAB functions residing in a folder named with non-ASCII characters (such as Japanese characters) cannot be deployed.
- MATLAB Production Server cannot be installed into a folder named with non-ASCII characters (such as Japanese characters).
- The MATLAB Compiler Runtime (MCR) is not cross-locale compatible. If a MATLAB Production Server client sends a locale-specific character to a server running an MCR in a different locale, data may be corrupted.

Apple Macintosh Limitations

The following limitations apply to Apple Macintosh for this release of MATLAB Production Server:

- On Apple Macintosh, MATLAB Production Server does not support running a display. Any MATLAB files containing graphics will encounter errors if run on MATLAB Production Server. To work around this limitation, add `--no-display` to your server's `main_config` configuration file.

- Specifying a worker pool memory limit (using `--worker-memory-trigger` or `--worker-memory-target`) is not supported on Macintosh OS X. To work around this limitation, remove these options from your server's `main_config` configuration file.