

TIBCO® Messaging Manager

TIBCO Enterprise Message Service™ Command Reference

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About this Product

TIBCO® is proud to announce the latest release of this TIBCO® Messaging Manager software component.

This release is the latest in a long history of TIBCO products that leverage the power of Information Bus® technology to enable truly event-driven IT environments. To find out more about how TIBCO Messaging Manager software and other TIBCO products are powered by TIB® technology, please visit us at www.tibco.com.

TIBCO Messaging Manager software is part of TIBCO Messaging.

Product Overview

TIBCO Messaging Manager (MSGMX) provides an intelligent, predictive, and auto-completing command-line interface for messaging/streaming systems such as TIBCO Enterprise Message Service (EMS), Apache Kafka, and Apache Pulsar. MSGMX runs in any standard console window or terminal emulator.

Getting Started

TIBCO® Messaging Manager (MSGMX) 3.1.0 can be used to manage the [TIBCO Enterprise Message Service](#) (EMS) release version 10.1.0 or later. Using MSGMX EMS commands, you can manage a live EMS server end to end with advanced autocompletion features at the command prompt.

Before using MSGMX to manage EMS, review the following information and refer to the TIBCO Enterprise Message Service™ *User Guide*.


Requirements

To run MSGMX EMS commands, your systems need to meet the following requirements:

- You need EMS 10.1.0 or later installed and accessible from the MSGMX server. See the TIBCO Enterprise Message Service™ *Installation Guide*.
- Java must be 1.8.0_311 or later.

Convert .conf Files to JSON Configuration File

The EMS server stores its configuration either in a set of text-based .conf files or a single JSON configuration file. MSGMX requires that the EMS server uses a JSON configuration file. You must convert classic server configuration files to JSON. For steps, see TIBCO Enterprise Message Service™, *User Guide*, "Conversion of Server Configuration Files to JSON" section.

 **Important:** MSGMX checks to ensure the EMS server uses a JSON-based configuration. If it does not, the connection fails and responds with an error message: "The server is not using JSON configuration and cannot be managed by MSGMX."

Set the Environment Settings

You must set the EMS_HOME environment variable before proceeding.

EMS_HOME=ems installation dir;

Linux and macOS example:

```
export EMS_HOME=/opt/tibco/ems/10.1
```

Windows example:

```
set EMS_HOME=C:\tibco\ems\10.1
```

Starting MSGMX to Manage EMS

Perform the following steps:

1. Confirm you have EMS installed and running and that can EMS be accessed via MSGMX. This server does not need to be running on the system you installed MSGMX on, but this server must be accessible from the MSGMX server. At a minimum, install the C & .NET Clients and Third Party Libraries components of the EMS installer. See TIBCO Enterprise Message Service™, *Installation Guide* for details.
2. In a local console window, either add the directory containing the MSGMX executable file to your PATH or change into the directory containing the executable. For example:

Unix:

```
export PATH=$PATH:/opt/tibco/msgmx/bin
```

or

```
cd /opt/tibco/msgmx/bin
```

Windows:

You can add the path MSGMX executables using either the system tool to add environment variables or directly at the command prompt as follows.

```
set PATH=%PATH%;c:\tibco\msgmx\bin
```

or

```
cd C:\tibco\msgmx\bin
```

3. Launch the MSGMX component using the `msgmx` command.
Linux and macOS example:

```
./msgmx
```

Windows:

```
msgmx.bat
```

4. Use the MSGMX `manage` command to select the component to manage. For example, to manage EMS:

```
manage ems
```

5. At the MSGMX prompt, initiate a connection to an EMS server using the `connect` command from the current host:

```
connect tcp://localhost:7222 username password
```

If MSGMX cannot connect using the information you provided, the following error message displays:

```
Unable to connect to the server.
```

On successful connection, the following message displays:

```
Connected as <username>
```

Ensure that the target EMS server is running and is accessible at the specified host and port.

6. As a test command, enter the `info` command:

info

The output displays information similar to the following:

```

Server:                EMS-SERVER (version: 10.1.0 V4)
  Hostname:            MacBook-Pro.local
  Process Id:          41706
  State:               active
  Runtime Module Path:
/opt/tibco/ems/10.1/bin/lib:/opt/tibco/ems/10.1/lib
Topics:                3 (2 dynamic, 0 temporary)
Queues:                11 (0 dynamic, 5 temporary)
Client Connections:    0
Admin Connections:     5
Sessions:              5
Producers:             5
Consumers:             5
Durables:              7
Pending Messages:      0
Pending Message Size:  0.0 Kb
Message Memory Usage:  58.4 Kb out of 512MB
Message Memory Pooled: 59.0 Kb
Synchronous Storage:   2.0 Kb
Asynchronous Storage:  9.5 Kb
Fsync for Sync Storage: disabled
Inbound Message Rate:  0 msgs/sec,  0.1 Kb per second
Outbound Message Rate: 0 msgs/sec,  0.8 Kb per second
Storage Read Rate:     0 reads/sec,  0.0 Kb per second
Storage Write Rate:    0 writes/sec, 0.0 Kb per second
Uptime:                4 days 9 hours 18 minutes

```

Also see the [connect to Server](#) and [disconnect from Server](#) commands.

Bottom Status Bar

The bottom status bar provides information about the currently managed server.

- 1: Server ID, server state, server uptime
- 2: Server ID, number of client connections, number of admin connections
- 3: Server ID, pending message size, message memory usage

To cycle through the different status bar displays, press F1.

The status bar display automatically refreshes periodically, but you can refresh the live status display at any time by pressing F5. (The frequency of the status updates can be configured via the `msgmx` command covered in [Messaging Manager](#), User Guide.)

Configuration and Operational Commands

MSGMX provides a full set of commands to manipulate configuration settings, modify the EMS server, and display current settings.

Configuration Commands

All configuration settings are manipulated with MSGMX. No manual editing of a configuration JSON file is required.

EMS Server configuration changes can take effect immediately or after a deployment is made.

- **Dynamically (live):** You can make dynamic changes to an operational EMS server. Dynamic changes do not impact core server functionality unrelated to the change. The changes typically take effect immediately, without a server restart being necessary.
- **Deployment (non-live):** For changes that impact the server and operations on a larger scale (stores and transports), you must deploy changes after entering them by restarting the server. Undeployed changes such as these are displayed with a heading "Undeployed Store Changes" for stores and "Undeployed Transport Changes" for transports.

Operational Commands

Operational MSGMX EMS commands do not change configuration settings but cause dynamic changes to the EMS server. For example, you can delete, purge, or reset states on the EMS server. These actions occur immediately and do not need to be deployed.

Syntax Conventions

MSGMX EMS commands typically start with a verb that states the action to be taken—create, delete, and so on. These verbs are listed in this manual in alphabetical order for easy reference.

Commands can have properties. Properties may be required or optional. Optional items are shown in this document enclosed in square brackets as shown here: [optional item]. Free text entry is designated in italics as *FreeTextEntry*. This example command demonstrates the syntax:

```
addprop topic topic_nameproperty1 [property2...]
```

Here, `addprop` is the command, `topic` is the object the command will operate on, and `topic_name` is where you enter the free-form name of the topic. This command requires at least one property pair consisting of a property name and value (shown above as `property1`). Subsequent optional properties, like `property2` are separated by spaces and shown in square brackets.

Below is an example of the `addprop topic` command with two properties which are `description` and `global`. Unlike some legacy EMS management tools, in MSGMX EMS commands, equal signs are not used between a property and the property value. For other syntax rules, see [Syntax Exceptions to the EMS Administration Tool](#).

```
addprop topic topic1 description "Test topic" global true
```

Syntax Exceptions to the EMS Administration Tool

Experienced EMS Administration Tool (tibemsadmin) users will notice that most MSGMX EMS commands tend to generally follow the EMS Administration Tool structure with some exceptions to work within the MSGMX grammar and syntax. These exceptions are detailed below.

- Use a space instead of an equal (=) sign in MSGMX EMS commands. A command containing an equal sign is invalid. Examples:

- EMS Administration Tool command example:

```
addprop topic topic1 maxmsgs=5
```

- MSGMX EMS command example using a space rather than an equal sign:

```
addprop topic topic1 max_messages 5
```

- Use a space instead of a comma to separate properties in MSGMX EMS commands. MSGMX EMS property names and values are paired and a new property name can be typed after the previous property's value separated by a space. A comma is not a valid property separator in MSGMX syntax. Examples:

- EMS Administration Tool command example:

```
addprop topic mytopic import="FTL01", export="FTL02", maxbytes=1MB
```

- MSGMX EMS command example, which omits commas:

```
addprop topic mytopic import_transports FTL01 export_  
transports FTL02 max_bytes 1MB
```

- In MSGMX EMS commands, commas are only used to separate a list of values assigned to a single property, rather than separating one property from

another. The value is a single string and no spaces are inserted before or after the comma.

In the following command, the import values to receive messages from two external systems are separated by a comma.

```
addprop topic topic2 import_transports t3,t5 export_transports  
t3 max_bytes 1MB
```

- To enter string values that contain space characters, you can use straight single quotes or double quotes. Examples:

- EMS Administration Tool requires the string literal to be enclosed in single quotes not double quotes:

```
add member 'agrawal a'
```

- MSGMX EMS commands allows the literal string to be enclosed in double quotes or single quotes:

```
add member "agrawal a"
```

or

```
add member 'agrawal a'
```

- MSGMX EMS commands allow the string enclosed in double quotes where the string includes straight single quotes or vice versa:

```
create durable topic3 dName3 selector "urgency in  
( 'high', 'medium' )"
```

or

```
create store '{"South":"Venue"}'
```

Grammar Exceptions to the EMS Administration Tool

Grammar differences between the EMS Administration Tool commands and MSGMX EMS commands follow. For syntax differences, see [Syntax Exceptions to the EMS Administration Tool](#).

MSGMX EMS Commands	EMS Administration Tool
bridge	
create bridge source_type topic queue source_name <i>source_name</i> target_type topic queue target_name <i>target_name</i> [selector <i>msg_selector</i>]	create bridge source= <i>type:dest_name</i> target= <i>type:dest_name</i> [selector= <i>msg-selector</i>]
show bridge topic queue bridge_source <i>bridge_source_name</i>	show bridge topic queue <i>bridge_source</i>
delete bridge source_type topic queue source_name <i>source_name</i> target_type topic queue target_name <i>target_name</i>	delete bridge source= <i>type:dest_name</i> target= <i>type:dest_name</i>
durable	
create durable <i>durable_name</i> topic <i>topic_name</i> [<i>propert1 property2...</i>]	create durable <i>topic-name durable-name</i> [<i>property, ... ,property</i>]
show durable <i>durable_name</i> [client_id <i>client_id</i>]	show durable <i>durable-name</i>
show durables [pattern <i>topic_pattern</i>]	show durables [<i>pattern</i>]
delete durable <i>durable_name</i> [client_id <i>client_id</i>]	delete durable <i>durable-name</i> [<i>clientID</i>]
factory	

MSGMX EMS Commands	EMS Administration Tool
create factory <i>factory_name</i> type {generic xageneric topic queue xatopic xaqueue} url <i>url</i> [<i>property1 property2...</i>]	create factory <i>factory_name</i> <i>factory_parameters</i>
group	
create group <i>group_name</i> [description <i>description</i>]	create group <i>group_name</i> "description"
member	
add member <i>group_name</i> user <i>user1 user2...</i>	add member <i>group_name</i> <i>user_name</i> [, <i>user2,user3,...</i>]
remove member <i>group_name</i> user <i>user1 user2...</i>	remove member <i>group-name</i> <i>user-name</i> [, <i>user2,user3,...</i>]
route	
create route <i>name</i> zone_type <i>type</i> zone_name <i>name</i> [url <i>URL</i>] [property <i>prop_val</i>]	create route <i>name</i> url= <i>URL</i> [<i>properties...</i>]
user	
create user <i>user_name</i> [description <i>description</i>] [password <i>password</i>]	create user <i>user_name</i> [" <i>user_description</i> "] [password= <i>password</i>]

Commands: MSGMX versus EMS Administration Tool

In addition to the EMS Administration Tool commands you are already familiar with, MSGMX EMS commands include the following commands which are not in the EMS Administration Tool:

- [connect to Server](#)
- [disconnect from Server](#)
- [transport Commands](#)
 - create transport
 - addprop transport
 - setprop transport
 - show transport
 - show transports
 - removeprop transport
 - delete transport
- [store Commands](#)
 - create store
 - addprop store
 - setprop store
 - show store
 - show stores
 - removeprop store
 - delete store
- [enable and disable ftl-transports Commands](#)

- [deploy Command](#)

The following EMS Administration Tool commands are not included in the MSGMX EMS commands.

- autocommit
- commit
- compact
- echo
- jaas
- jaci
- time
- timeout

connect to Server

connect [*server_url*] [{*admin*|*user_name* *password*}]

Connect to the server. If you provide a username, a password is required.

Any administrator can connect. An administrator is either the admin user, any user in the \$admin group, or any user that has administrator permissions enabled. See [TIBCO Enterprise Message Service™ User Guide, Administrator Permissions](#).

server_url

server_url is usually in the form:

```
protocol://host-name:port-number usernamepassword
```

For example:

```
tcp://myhost:7222 user1 password
```

The protocol can be `tcp` or `ssl` via Transport Layer Security (TLS).


Connecting via TLS

Connecting via TLS requires TLS parameters. See [TIBCO Enterprise Message Service™ User Guide](#) sections that follow :

- [Fault Tolerance Parameters](#)
- [TLS Server Parameters](#)
- [Configure TLS in the Server](#)
- [Specify Cipher Suites](#)

For TLS passwords, you can provide a password file or use the `ssl_password` option.

- Use the `ssl_pwdfile` option to provide a password file. See [TIBCO Enterprise Message Service™ User Guide, Options for tibemsadmin](#) section for details.
- Use the `ssl_password` option to specify the ssl password. Always use unmangled passwords. See [TIBCO Enterprise Message Service™ User Guide, ssl_password](#) section for details.

 **Important:** To connect through TLS, do not specify both `ssl_key` and `ssl_identity` properties at the same time. EMS allows only one at a time.

Also see [disconnect from Server](#).

disconnect from Server

disconnect

Use the disconnect command to disassociate your MSGMX session from the EMS server.

Also see [connect to Server](#).

transport Commands

Creating, updating, or deleting a transport does not take effect until the transport is deployed and the EMS server is restarted.

create transport

create transport *transport_name* type *transport_type* [*property1 property2...*]

Create a transport between the EMS server and a FTL server cluster.

Example:

```
create transport mytransport type tibftl export_headers true
```

addprop transport

addprop transport *transport_name* [*property1 property2...*]

Add transport properties and retain existing properties.

Example:

```
addprop transport mytransport export_headers true
```

setprop transport

setprop transport *transport_name* [*property1 property2...*]

Set the properties for a transport, overriding any existing properties. Any properties that are not explicitly specified by this command are removed.

Example:

```
setprop transport mytransport topic_import_dm TIBEMS_PERSISTENT queue_
import_dm TIBEMS_PERSISTENT export_headers true export_properties true
```

show transport

show transport *transport_name*

Show the details of a specific transport.

show transports

show transports

Show a list of the server's transports.

removeprop transport

removeprop transport *transport_name* [*property1 property2...*]

Remove named properties from the named transport.

Example:

```
removeprop transport mytransport export_headers
```

delete transport

delete transport *transport_name*

Delete a transport between the EMS server and a FTL server cluster.

Example:

```
delete transport mytransport
```

Resources

For more details about transports, see the following [TIBCO Enterprise Message Service™ User Guide](#) sections:

- [transports.conf](#)
- [EMS Transport for FTL Definitions](#)

For syntax rules, see [Syntax Exceptions to the EMS Administration Tool](#) .


store Commands

Creating, updating, or deleting a store does not take effect until the store is deployed and the EMS server is restarted.

create store

create store *store_name* [*description*] [*property1 property2...*]

Create a store. After creating a store, you cannot change the type for that store.

 **Important:** If a path and filename are specified, they must be valid for the system on which the EMS server is running. MSGMX cannot detect a configuration error of this type at the time this property is applied though the EMS server will report a runtime error.

Example:

```
create store mystore type file /dir1/dir2/file myfile file_destination_
defrag 5GB
```

addprop store

addprop store *store_name* [*property1 property2...*]

Add store properties and retain existing properties.

Example:

```
addprop store mystore type file ode async
```


setprop store

setprop store *store_name* [*property1 property2...*]

Set the properties for a store, overriding any existing properties. Any properties on a store that are not explicitly specified by this command are removed.

Example:

```
setprop store mystore type file mystore1 mode async
```

show store

show store *store-name*

Show the details of a specific store.

show stores

show stores

Show a list of all the stores that are created.

removeprop store

removeprop store *store_name* [*property1 property2...*]

Remove the named properties from the named store.

Example:

```
removeprop store mystore type as scan_target_interval
```

delete store

delete store *store_name*

Delete store.

Example:

```
delete store mystore
```

Resources

For information on store properties, including defaults, see the following sections in the TIBCO Enterprise Message Service™ User Guide:

- [stores.conf](#)
- [Destination Properties, store](#)
- [Configuring Grid Stores](#)
- [Configuring FTL Stores](#)
- [FTL Stores \(for TIBCO FTL\)](#)
- [Grid Stores \(for TIBCO ActiveSpaces\)](#)

For syntax rules, see [Syntax Exceptions to the EMS Administration Tool](#) .

enable and disable ftl-transports Commands

FTL transports are created and managed via the [transport Commands](#). You may also enable and disable all ftl-transports.

enable ftl-transports

enable ftl-transports [*property1 property2...*]

Enable EMS server support for FTL transports. The optional property settings are shared between all the transports of type `ftl` that were created with `create transport` or updated with `addprop transport`, `setprop transport`, or `removeprop transport`. See [transport Commands](#).

Once FTL transports are enabled with the properties set, then disabled, the properties remain associated with the FTL transports. If enabled again and deployed, the already set properties remain in effect.

To prestage (deploy properties but not enable them), enable the FTL transports and set the properties. Then disable the FTL transports before deployment. After the disable, you can deploy to put the properties into effect.

Example:

```
enable ftl-transports password secret username admin discard_amount 23
```

disable ftl-transports

disable ftl-transports

Disable EMS server support for FTL transports. The properties remain associated with the FTL transports.

Resources

For information about FTL transports properties, see (missing or bad snippet), *User Guide* sections:

- transports.conf
- EMS Transport for FTL Definitions

For syntax rules, see [Syntax Exceptions to the EMS Administration Tool](#) .

deploy Command

deploy

Deploy all changes to stores and transports. The EMS server restart is required.

TIBCO Documentation and Support Services

For information about this product, you can read the documentation, contact TIBCO Support, and join TIBCO Community.

How to Access TIBCO Documentation

Documentation for TIBCO products is available on the [Product Documentation website](#), mainly in HTML and PDF formats.

The [Product Documentation website](#) is updated frequently and is more current than any other documentation included with the product.

Product-Specific Documentation

Documentation for this product is available on the [TIBCO® Messaging Manager Product Documentation](#) page:

Updated Resources on TIBCO Community

Supplemental resources are now distributed at the [TIBCO Messaging Community Wiki](#) in the Reference Info tab. You can always find the latest versions of these resources in that location.

Those resources include quick start guides, tutorials, and usage examples.

How to Contact Support for TIBCO Products

You can contact the Support team in the following ways:

- To access the Support Knowledge Base and getting personalized content about products you are interested in, visit our [product Support website](#).
- To create a Support case, you must have a valid maintenance or support contract with a Cloud Software Group entity. You also need a username and password to log in to the [product Support website](#). If you do not have a username, you can request

one by clicking **Register** on the website.

How to Join TIBCO Community

TIBCO Community is the official channel for TIBCO customers, partners, and employee subject matter experts to share and access their collective experience. TIBCO Community offers access to Q&A forums, product wikis, and best practices. It also offers access to extensions, adapters, solution accelerators, and tools that extend and enable customers to gain full value from TIBCO products. In addition, users can submit and vote on feature requests from within the [TIBCO Ideas Portal](#). For a free registration, go to [TIBCO Community](#).

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