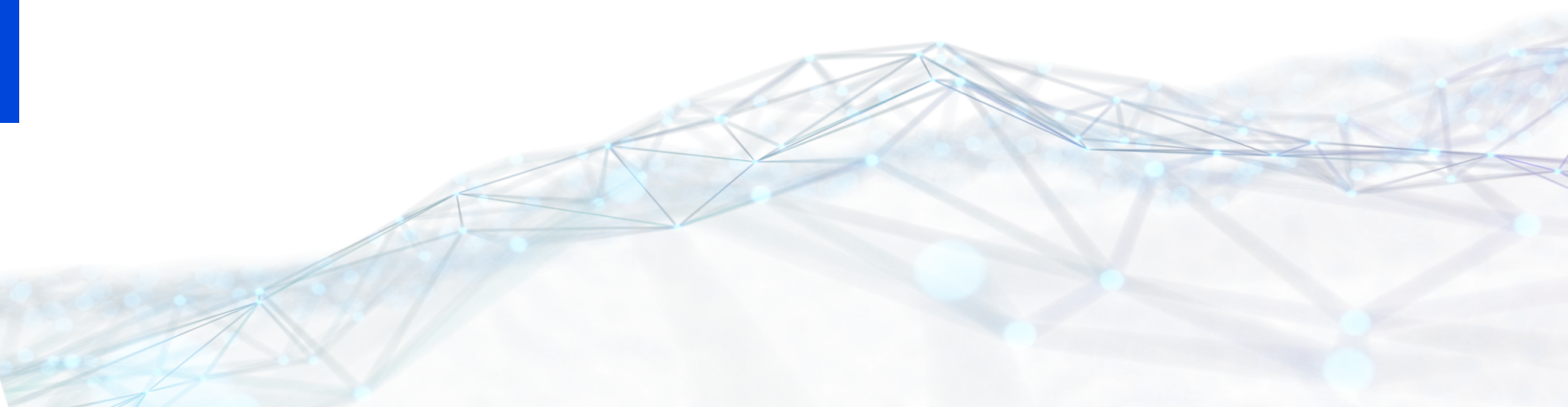




# **TIBCO Foresight® REST API**

## **Standalone Installation and Deployment**

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# Installation Overview

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This document covers the instructions to build and deploy the TIBCO Foresight® REST API component Docker image as part of a standalone installation.

# Installation Requirements

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Before you install and deploy the application, ensure that your system meets all the hardware and software requirements. For more information about the hardware and software requirements, supported platforms, versions, and the required patches, see the product *Readme* file.

The *Readme* file can be obtained either on the [TIBCO Product Documentation](#) website or from the [TIBCO eDelivery](#) website with the product software.

 **Note:** To access the [TIBCO eDelivery](#) website, you need a username and password. If you did not receive a username and password, contact [TIBCO Support](#).

## System Requirements

### Supported Platforms

The supported platforms are as follows:

- Rocky Linux 8.x 64-bit x86-64
- RHEL 8.x 64-bit x86-64

### Disk Space Requirements

The minimum disk space requirement is 20 GB.

### System Memory Requirements

The minimum system memory requirement is 4 GB.

## Required TIBCO Products

The following table lists the required and optional TIBCO products.

**i Note:** The following software products are distributed and installed separately from this product. See the *Readme* file for the supported versions.

| Software  | Description   |
|---|---|
| TIBCO Foresight® Instream® Standard or Healthcare Edition | Foresight® Instream is used to validate EDI and flat files, and to produce response documents and split data. |
| TIBCO Foresight® Translator                               | Foresight® Translator is used to translate EDI files to and from XML.   |

## Required Third-Party Products

The following table lists the required third-party products.

**i Note:** When you obtain third-party software or services, it is your responsibility to ensure you understand the license terms associated with such third-party software or services and comply with such terms. See the product *Readme* file for the supported versions.

| Software | Description  |
|----------|--|
| Docker   | <p>Docker provides a way to securely run applications isolated in a container, packaged with all its dependencies and libraries. Your application can run in any environment as all the dependencies are already present in the image of the application.</p> <p>You must install Docker to build the Docker images. For more information about Docker installation and initial setup based on your operating system, see <i>Docker Documentation</i>.</p> |

| Software           | Description   |
|--------------------|---|
| kubectl            | Kubernetes provides many advantages such as scaling, high-availability, and recovery. You must install it on the Kubernetes cluster. For more information, see <i>Kubernetes Documentation</i> .                            |
| Kubernetes cluster | <p>You must set up a Kubernetes cluster to deploy and run the services.</p> <p><b>Note:</b> To run the application in a Kubernetes cluster on a cloud platform, you must have an active account on that cloud platform.</p> |

# TIBCO Foresight REST API Dockerfiles and Scripts

Foresight® REST API installation and deployment packages provide all the necessary Dockerfiles, scripts, and configuration files to install, deploy, and uninstall all the Foresight REST API services or deployments.

## Dockerfiles and Scripts

A Dockerfile is simply a text-based script of instructions that is used to create a container image.

**i Note:** All the following files are available on the standalone-deployment and images folder.

| File                   | Description   |
|------------------------|---|
| build-fsrest-engine.sh | Creates the Foresight Instream/Foresight Translator engine used by the Foresight REST API image.  |
| build-images.sh        | Creates the Foresight REST API Docker images and push the images to the Docker repository.<br><b>Note:</b> build-fsrest-engine.sh needs to be run at least once before running build-images.sh. |
| deploy-fsrest.sh       | Deploys the Foresight REST API services onto the Kubernetes cluster.  |
| docker-run-fsrest.sh   | Deploys the Foresight REST API image to the Docker registry.  |

| File                                      | Description   |
|---|---|
| <code>remove_fsrest_services.sh</code>    | Deletes Foresight REST API services from Kubernetes cluster.  |
| <code>apply_secret_docker_login.sh</code> | Creates the Kubernetes secret Docker-registry for Docker login.   |
| <code>stop_fsrest_container.sh</code>     | Stop and remove the Docker container from the docker registry.  |
| <code>build-fsrest-image-silent.sh</code> | Create the Foresight Instream/Foresight Translator engine and Foresight REST API docker images, it pushes the images to the Docker repository. This script is the silent mode installation process of combination of <code>build-fsrest-engine.sh</code> and <code>build-images.sh</code> . |

## Configuration Files

A configuration file (config file) is used to configure the parameters, settings, and preferences.



**Note:** All the following files are available on the standalone-deployment and images folder.

| File  | Description   |
|---|---|
| <code>configuration.properties</code>             | Contains the Docker properties to be set before building Foresight REST API docker images.  |
| <code>build-fsrest-image-silent.properties</code> | Contains all other properties to be set before building Foresight REST API docker images with <code>build-fsrest-image-silent.sh</code> . |
| <code>deployment.properties</code>                | Contains all the properties that the user has to set to deploy the Docker images to the Kubernetes cluster.                               |



# Deploying TIBCO Foresight REST API Application

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You can build the docker image for Foresight REST API either in console mode or in silent mode and push the docker image to a Docker repository, which can be pulled during the deployment. Each mode is supported on all the available platforms of Foresight REST API. For more information see, *TIBCO Foresight® REST API Installation*.

# Deploying TIBCO Foresight REST API Component's Docker Image

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To deploy the standalone Foresight REST API component's docker image on the Docker or Kubernetes platform, perform the following steps.

## Procedure

1. Navigate to the `<folder>/fsrest_1.2.0/standalone-deployment/config` directory.
2. Open the `deployment.properties` file and configure the properties listed in the following table.

| Property  | Description  |
|---|--|
| <b>docker_repository</b><br><code>=&lt;docker_registry_ip&gt;:&lt;docker_registry_port&gt;</code> | <code>&lt;docker_registry_ip&gt;</code> is the IP address and <code>&lt;docker_registry_port&gt;</code> is the port of the machine from which you want to pull the Docker images.  |
| <b>docker_username</b>  | Specify the username required to log in to Docker.   |
| <b>host_ip</b><br><code>=&lt;host_ip&gt;</code>   | <code>&lt;host_ip&gt;</code> is the IP address of the host machine, host name, or Kubernetes cluster.  |
| <b>mount_path</b>   | <p>Specifies the external directory to be used as the parent for the FS Rest data store directories. Note that the following directory structure must be created under the <code>mount_path</code> directory:</p> <ul style="list-style-type: none"><li>• <code>controlfiles</code></li><li>• <code>datafiles</code></li><li>• <code>guidelines</code></li></ul> |

| Property                   | Description   |
|----------------------------|---|
|                            | <ul style="list-style-type: none"> <li>◦ Database</li> <li>◦ Static</li> <li>• maps</li> </ul> <p><b>Note:</b> Copying data files, control files, guidelines, map files from container to mount_path is not supported during the deployment process in this release. But the copy operation can be done while building the Foresight REST API image. For more Information, see <i>TIBCO Foresight® REST API Installation</i>.</p> |
| fsr_port                   | Port of the Foresight REST API.   |
| fsrest_loglevel            | A number specifying the detail of the Foresight REST API log messages from 0 (minimal log messages) through 5 (lots of log messages, typically used for debugging).   |
| k8s_namespace              | Namespace of Kubernetes. The namespace used by FSRest and other applications must be the same one.  |
| file_request_callback_addr | URL of file request Callback address.   |
| val_callback_addr          | URL of validation guidelines Callback address.  |
| trans_callback_addr        | URL of translation in Callback address.   |
| message_post_addr          | URL of message posting Callback address.  |
| notify_post_addr           | URL of notification Callback address.   |
| fsrest_replicas            | Replicas of Foresight REST API microservice.  |

| Property  | Description   |
|-----------|---|
| enableSsl | To enable SSL and support HTTPS for Foresight REST API. |

3. Save and close the `deployment.properties` file.
4. To deploy the Foresight REST API component's Docker images, run one of the following commands depending on the platform.

- **Kubernetes:** Navigate to the `<folder>/fsrest-1.2.0/standalone-deployment/scripts` directory and run the following command.

```
./deploy-fsrest.sh
```

- **Docker:** Navigate to the `<folder>/fsrest-1.2.0/standalone-deployment/samples/docker-scripts` directory and run the following command.

```
./docker-run-fsrest.sh
```

5. Follow the command-line interface instructions, review the license agreement, and enter `y` to accept it.
6. This step is applicable only if you want to deploy the Foresight REST API service on Kubernetes, otherwise skip this step.

When prompted:

```
Which Kubernetes environment do you want to deploy TIBCO Foresight
REST API service?
1. Native Kubernetes
q. Quit
```

Enter 1, or q.

## Result

You have deployed the Foresight REST API application.

## What to do next

Check the product-specific documentation for further steps.

# Uninstalling TIBCO Foresight REST API Component

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To uninstall the Foresight REST API component, perform the following steps:

## Procedure

1. To remove the Foresight REST API service or deployment, run one of the following commands depending on the platform:

- **Kubernetes:** Navigate to the <folder>/fsrest-1.2.0/standalone-deployment/scripts directory and run the following command:

```
./remove_fsrest_services.sh
```

- **Docker:** Navigate to the <folder>/fsrest-1.2.0/standalone-deployment/samples/docker-scripts directory and run the following command:

```
./stop_fsrest_container.sh
```

2. Delete all the Docker images.

# Viewing Container Logs

---

All the Foresight REST API component containers publish their logs in the standard output device.


## Procedure


1. To view logs of a particular container, run one of the following commands depending on the platform:

- **Kubernetes:**

```
kubectl logs <container_id> -n <k8s_namespace>
```

Where *<k8s\_namespace>* is the Kubernetes namespace that you have set in the `deployment.properties` file.

 **Note:** If *<k8s\_namespace>* is not set, then its default value is *fsrest*.

 **Tip:** To follow logs, use `--follow`.

- **Docker:**

```
docker logs <container_id>
```

# TIBCO Documentation and Support Services

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For information about this product, you can read the documentation, contact 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

The documentation for this product is available on the [TIBCO Foresight® REST API Product Documentation](#) page.

## 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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