



TIBCO Foresight® Operational Monitor

Administration Guide

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Introduction

Overview

TIBCO Foresight® Operational Monitor provides a web interface that allows you to track the flow of files through an Automator workflow or other system and answer questions such as:

- Where did it fail?
- What events happened to this file?
- How long did it take to import, run through TIBCO Foresight Instream®, and so on.

It does this by using collection points that report one or more events for a given business activity.

Intended Audience

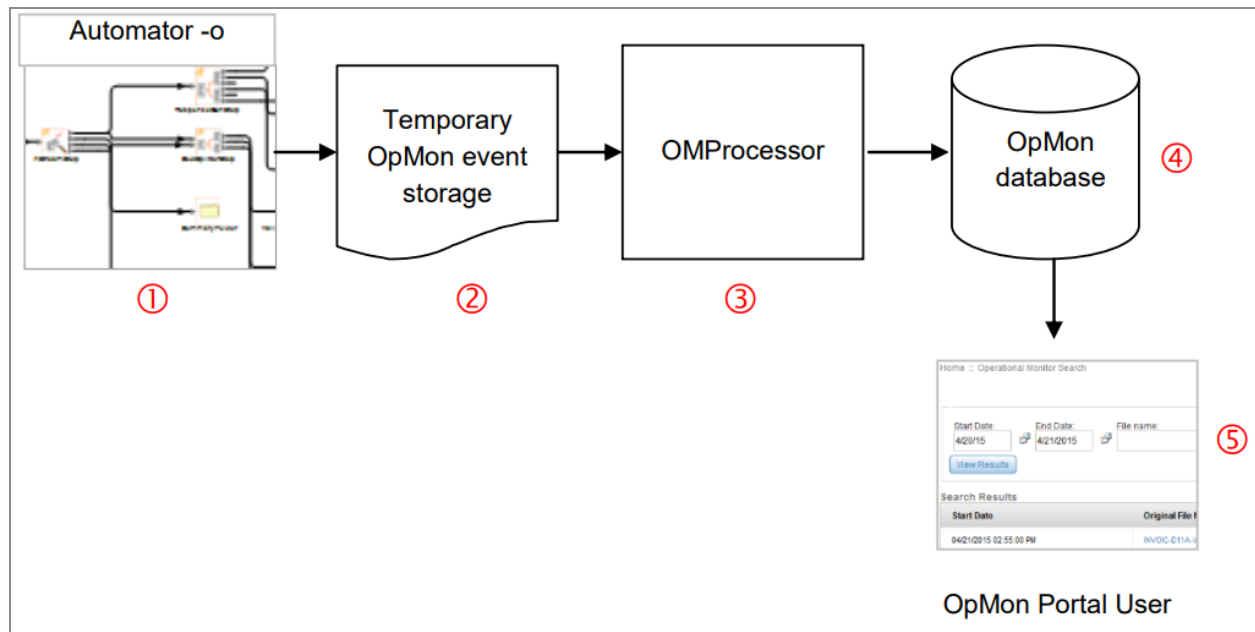
This manual is intended for Foresight® Operational Monitor administrators. It tells you how to administer your Foresight Operational Monitor portal and provides information about configuration.

For other Foresight Operational Monitor information, please see:

- [TIB_fsp_opmon_n.n.n_userguide.pdf](#) for user information
- [TIB_fsp_opmon_n.n.n_releasenotes.pdf](#) for release information
- [TIB_fsp_transactioninsight_n.n.n_installation.pdf](#) for installation and configuration information
- [TIB_fsp_transactioninsight_n.n.n_commonadmin.pdf](#) for user setup and permissions.

Example Configuration 1: Using Foresight Automator

This implementation uses a TIBCO Foresight® Studio® Automator workflow to write the PGN files that contain event information. OMprocessor then puts the information that the files contain in the Foresight Operational Monitor database for viewing in the Foresight Operational Monitor portal.



You must install:

- OMProcessor
- Front End

See [TIB_fsp_transactioninsight_n.n.n_installation.pdf](#) for details. Numbered steps from the preceding diagram:

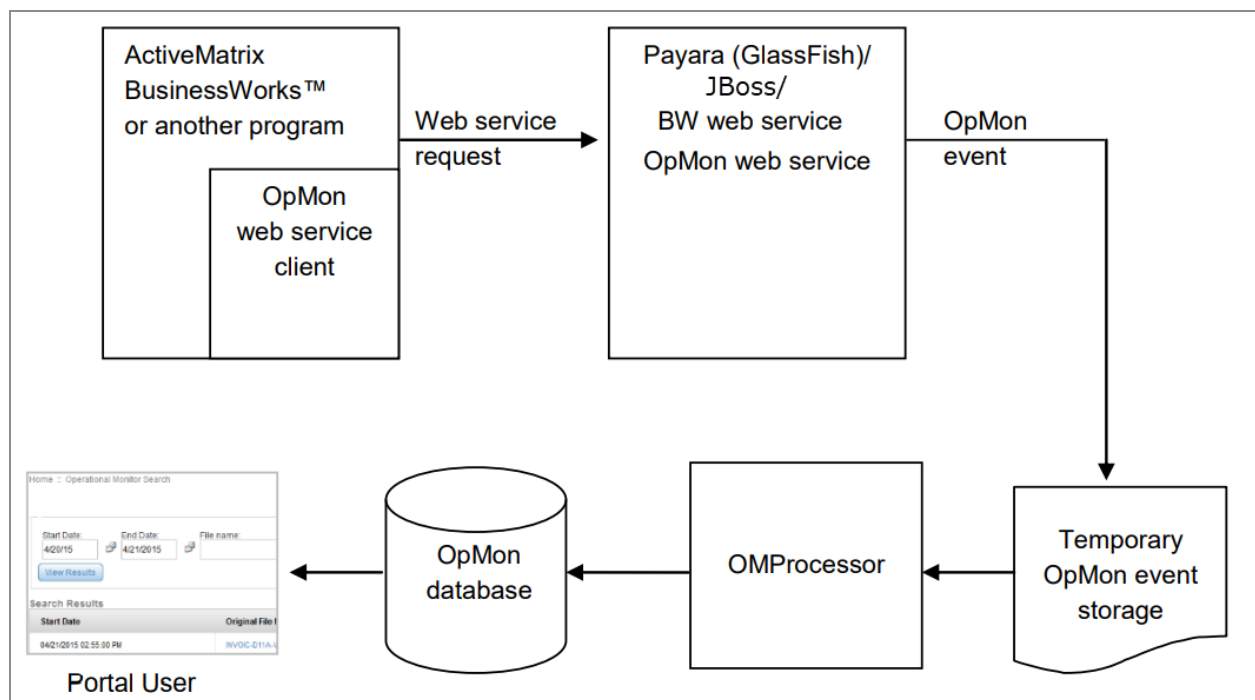
1. Automator starts a workflow, with its -o parameter.
2. Each workflow input file gets a report about what happened while it was going through the workflow. (Note: these are stored in *.pgn files.)
3. OMProcessor is continually running to pick up temporary event information and put it in the TIBCO Foresight® Operational Monitor database.
4. The information is now in the database.

5. A Foresight Operational Monitor portal user searches for a file to see what happened during its workflow processing.

Example Configuration 2: Using the Foresight Operational Monitor Web Services

This implementation uses Foresight Operational Monitor web services to record events for viewing in the Foresight Operational Monitor portal. An Automator workflow or API is not needed.

For example, TIBCO ActiveMatrix BusinessWorks™ or some other program can add information to the portal about the arrival of a new file from a partner with a setup like this:



You must install:

- Payara (GlassFish)/ JBoss
- OMProcessor
- Server

- Front End

See `TIB_fsp_transactioninsight_n.n.n_installation.pdf` for details.

The Foresight Operational Monitor Database

The Foresight Operational Monitor has its own Oracle or SQL Server database, which can be on the TIBCO Foresight® Transaction Insight® database machine or on another machine that can access the Transaction Insight® database.

It contains event information that has been stored there by OMProcessor.jar.

Foresight Operational Monitor uses the Common Administration portal, which is stored in the Transaction Insight database. This portal lets administrators create users, assign them roles that allow access, and so on.

Some Basic Concepts

Foresight Operational Monitor looks on all reported events for one particular business activity as a job. An input file into an Automator workflow or a script is a job.

Individual parts of the process become collection points that reports one or more events about the Job to the Foresight Operational Monitor.

In an Automator workflow, for example, a job starts with a file in the originating input folder, a collection point might be a Response Generator component, and it might have events like taking a DTL file in or putting a 997 file out. A component that has file movement without input and output lines (TPARouter, for example) generates a new job.

In a non-workflow, if you are writing a script that calls several different programs in order, each time you run that script is a job, each of the programs you are running are collection points, and each of those collection points reports information on what has happened as events.

Setting up Users

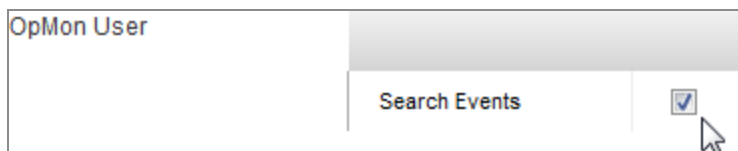
Adding Users

Add users through Common Administration. Please see Setting up new Users in TIB_fsp_transactioninsight_n.n.n_commonadmin.pdf.

Permissions

For access:

- The user needs OpMon User Search Events permission under Common Administration's Roles page. Assign this role to users who must have access to Foresight Operational Monitor. Please see Appendix D in TIB_fsp_transactioninsight_n.n.n_commonadmin.pdf.



- The Web.config file under Transaction Insight's environment needs to enable Foresight Operational Monitor with:
 - DisplayOperationalMonitorPortal - enables Foresight Operational Monitor on the portal
 - DisplayArchiveToOpMonLink - displays an Foresight Operational Monitor link from TIBCO Foresight® Archive and Retrieval System

Configuration and Systems Information

Important Files and Directories

These files and directories are on the back-end Foresight Operational Monitor server. Although they might be displayed on the portal server also, they are not used there except perhaps for the SQL files.

File or Directory	Default Location	Purpose
*.sql	\SqlServerScripts and \OracleScripts directories under installation .zip file.	Creates and sets up the Foresight Operational Monitor database. Please see the readme.txt file provided with the scripts for instructions.
OMProcessor.jar	OperationalMonitor\version \java directory	Program that imports temporary (PGN) files into the Foresight Operational Monitor database.
OMProcessor.bat	OperationalMonitor\version \bin directory	Runs OMProcessor.jar, which picks up PGN files and puts their contents in the Foresight Operational Monitor database. See OMProcessor Command Line .
OMProcessor.props	Under the root directory	Properties file for OMProcessor. It must be pre- set to appropriate values during installation. See Properties File .

File or Directory	Default Location	Purpose
Temporary files (“PGN files”)	Specified by Automator’s -o parameter	These are files waiting for OMProcessor to pick them up and put them in the Foresight Operational Monitor database. Default location is OpMonLoggingDir under Foresight’s Systems directory. See Putting Tracking Information into the Input Files .
root directory	OperationalMonitor\version	Holds OMProcessor.props, log files, archived data, and the fail folder. You can specify it with the OMProcessor command-line parameter -root.
arch directory	Under the root directory	Holds emergency troubleshooting files for use by TIBCO Foresight staff.
fail directory	Under the root directory	Holds PGN files that OMProcessor was not able to put into the database. You must get an email alert and must call TIBCO Foresight support immediately. It might be necessary to shut down OMProcessor multiple times if files start accumulating in the fail directory.
ISFileID.exe	ForesightAutomator\bin directory	Inserts a job ID into a validation DTL file. Necessary for Foresight Operational Monitor, Transaction Insight,

File or Directory	Default Location	Purpose
		<p>and Foresight® Archive and Retrieval System to link to one another. Always run your DTL files through this before importing into Transaction Insight or Foresight Archive and Retrieval System.</p> <p>For an example of how to use this program, see the environment InboundOM workflow. Its FileIDInsert component runs this program.</p>
ForesightAutomator.exe	ForesightAutomator\bin directory	When run with the -o command-line option, creates PGN files.

Properties File

For setup information, OMProcessor.jar uses OMProcessor.props in TIBCO Foresight® Operational Monitor's root directory.

This file is pre-configured during installation and must not be changed often. It contains these settings.

Settings	Description
dbTypeOM	SqlServer or Oracle.
dbConnectOM	<p>Connection string to the Foresight Operational Monitor database.</p> <p>For SqlServer</p> <pre>jdbc:sqlserver://na-dub- bigserver;databaseName=OpmonDemoDB;user=sa;password=pwd;trustServerCertificate=true;</pre>

Settings	Description
	For Oracle <code>jdbc:oracle:thin:OpmonDemoDB/pwd@na-dub-bigserver:port/servicename</code>
mailFromAddress	“From” address for email alerts.
mailToAddresses	“To” addresses for email alerts, separated by semi-colons. These should be working email addresses.
mailServerPort	Port to use when sending mail.
mailServerHost	SMTP server for Foresight Operational Monitor emails.
collect1	Location where OMProcessor finds PGN files. This has to be a directory where Automator is writing PGN files. Default is OpMonLoggingDir under Foresight’s Systems directory. You can add more than one collection directory. Just call the second pickup directory collect2, the third collect3, and so on. OMProcessor continually scan through all of them.
enableAlerts	Enable (true) or disable (false) email alerts sent by Foresight Operational Monitor. Example: enableAlerts=true

Processing Steps

The easiest way to use Foresight Operational Monitor is in an Automator workflow. Typical steps include:

1. Start OMProcessor. See [OMProcessor Command Line](#).
2. Run a workflow through Foresight® Studio® that has these steps, as a minimum:
 - a. Validate data to generate file-level FSUIDs.
 - b. Run the detail file through the FileIDInsert component.
 - c. Send the EDI and detail file to Importer and Archive components.



Be sure to run the workflow with the “eyeball” toolbar button open, or with Automator’s -o command line parameter. See [Putting Tracking Information into the Input Files](#).

Putting Tracking Information into the Input Files

Validate data so that the detail results file has file-level FSUID (see TIB_fsp_transactioninsight_n.n.n_FSUID_and_AppDocs.pdf).

In the workflow, right after validation, run the detail file through the ISFileIDInsert component to give it a job ID. This lets the file have links between Foresight Operational Monitor, Transaction Insight, and Foresight Archive and Retrieval System. For an example, see the Foresight Studio workflow named environment InboundOM. Its ISFileIDInsert component has been labeled FileIDInsert.

Creating Temporary Files

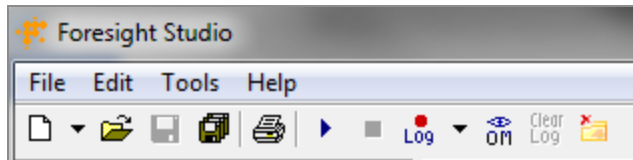
Tell Automator to create temporary files that contain processing information about each file that goes through the workflow. These are called PGN files.

To do this, use one of these methods.

- Start the workflow by running Automator with the -o parameter, which points to a directory where the PGN files must go. Example:

```
ForesightAutomator.exe - o"C:\Foresight\System\OpMonLoggingDir" ...
```

- Start the workflow with Foresight Studio with the “eyeball” toolbar button turned on so that it looks open:



In this case, the PGN files always go to the OpMonLoggingDir under Foresight’s Systems directory.

Either method causes Automator to create a PGN file for each file input into the workflow. In any case, the directory where the PGN files go must match a collect directory in OMProcessor.props, which is in TIBCO Foresight® Operational Monitor’s root directory.

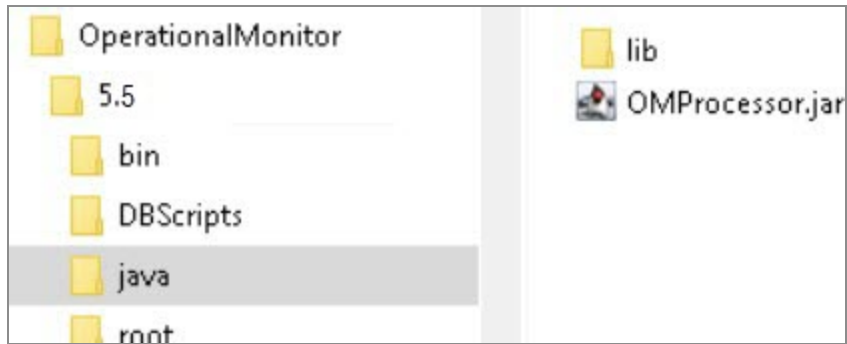
As OMProcessor puts them in the Foresight Operational Monitor database, they are deleted.

If OMProcessor fails to import them into the database, they are moved to the fail directory and an email is sent to the addresses named in OMProcessor.props.

Because these are stored as temporary files, processing does not have to wait if the database is slow or the network is down. You do not have to shut down the workflow if these resources are not available.

Importing Temporary Files into the Database

OMProcessor.jar takes PGN files and places their information in the Foresight Operational Monitor database.



OMProcessor is a background Java application which runs continually to process messages.

It resides in its own particular root folder, where it keeps an archive of its processed messages and any/all message failures it encounters:

- The archive folder have a time stamped folder structure with new archive files being created every hour.
- The fail folder contains any message files which caused fundamental processing difficulties. Every day, a new file is created to log failures.

Start OMProcessor from the command line or from the `OMProcessor.bat` file in Foresight Operational Monitor's `bin` directory. It continues to run until stopped, perusing the collect directories specified in `OMProcessor.props`, and putting any PGN files into the database.

OMProcessor Command Line

All parameters are optional, and include:

- Root folder - Location of the root folder. If the `-root` parameter is not specified, then the program looks for the `OMProcessor.props` file in the current working directory, and exits if it cannot find it.
- Alerts - Override the properties file by enabling or disabling e-mail alerts.
 - 0 - Do not send email alerts
 - 1 – Send email alerts

OMProcessor Example Commands

Example 1

This uses `OMProcessor.bat` (which is in Foresight Operational Monitor's bin directory). It points the processor to `C:\OM\OMRoot` and turns off email alerts.

```
OMProcessor.bat -root C:\OM\OMRoot -alerts 0
```

Example 2

This is the same command using `OMProcessor.jar` directly:

```
Java -jar OMProcessor.jar -root C:\OM\OMRoot -alerts 0
```

Logging

`OMProcessor.log` is created in the root directory. It contains information about basic events like `OMProcessor` starting and stopping, and it reports any problems that prevented it from putting something in the database.

It is a rolling log file, so when it gets to a certain size it deletes the oldest entries.

Web Services

Overview

The Foresight Operational Monitor Web Service allows for the inclusion of non-TIBCO process events into the Foresight Operational Monitor tracking system. For instance, if you wanted the arrival of a file in your FTP gateway to be recorded in the Foresight Operational Monitor log, you would call the web service.

See `TIB_fsp_transactioninsight_n.n.n Webservices_at_Foresight.pdf` for more information

Installation

Please see `TIB_fsp_transactioninsight_n.n.n_installation.pdf` for step-by-step instructions.

Procedure

1. When running the Transaction Insight installation program for Windows on the web portal machine, choose Front End - Web Portal under TIBCO Foresight Operational Monitor.

The screenshot shows a configuration window for TIBCO Foresight. It contains several sections with checkboxes for different components:

- Back End - AlertProcessor, Importer, TIMatcher, TIUtilities, ScenarioDetector, FhirImporter, FhirUtility, FhirPurge.** (checked)
- Front End - Web Portal and AlertProcessor** (checked)
- TIBCO Foresight Studio**
 - Studio / Automator / Windows® Service** (unchecked)
- TIBCO Foresight Archive and Retrieval System**
 - Client - imports data into the Archive (TI Archiver, Fhir Archiver)** (unchecked)
 - Server - requires Back End, Automator and Payara (GlassFish)/JBoss** (unchecked)
 - Front End - Web Portal - requires TI Front End** (unchecked)
- TIBCO Foresight Operational Monitor**
 - OMProcessor - processes client events** (unchecked)
 - Server - requires OMProcessor and Payara (GlassFish)/JBoss** (unchecked)
 - Front End - Web Portal - requires TI Front End** (checked)

2. If the back-end machine is Windows, choose OMProcessor - processes client events under TIBCO Foresight Operational Monitor when running the Transaction Insight installation program for Windows on that machine. This collects PGN files and puts them in the database, thus adding times and other information about each event being recorded.

<input type="checkbox"/> Back End - AlertProcessor, Importer, TIMatcher, TIUtilities, ScenarioDetector, FhirImporter, FhirUtility, FhirPurge. <input type="checkbox"/> Front End - Web Portal and AlertProcessor
TIBCO Foresight Studio <input type="checkbox"/> Studio / Automator / Windows® Service
TIBCO Foresight Archive and Retrieval System <input type="checkbox"/> Client - imports data into the Archive (TI Archiver, Fhir Archiver) <input type="checkbox"/> Server - requires Back End, Automator and Payara (GlassFish)/JBoss <input type="checkbox"/> Front End - Web Portal - requires TI Front End
TIBCO Foresight Operational Monitor <input checked="" type="checkbox"/> OMProcessor - processes client events <input type="checkbox"/> Server - requires OMProcessor and Payara (GlassFish)/JBoss <input type="checkbox"/> Front End - Web Portal - requires TI Front End

If the back-end machine is LINUX, use the separate LINUX installation instead.

3. If you are using your own web services to record events, then choose Server under TIBCO Foresight Operational Monitor.

<input type="checkbox"/> Back End - AlertProcessor, Importer, TIMatcher, TIUtilities, ScenarioDetector, FhirImporter, FhirUtility, FhirPurge. <input type="checkbox"/> Front End - Web Portal and AlertProcessor
TIBCO Foresight Studio <input type="checkbox"/> Studio / Automator / Windows® Service
TIBCO Foresight Archive and Retrieval System <input type="checkbox"/> Client - imports data into the Archive (TI Archiver, Fhir Archiver) <input type="checkbox"/> Server - requires Back End, Automator and Payara (GlassFish)/JBoss <input type="checkbox"/> Front End - Web Portal - requires TI Front End
TIBCO Foresight Operational Monitor <input checked="" type="checkbox"/> OMProcessor - processes client events <input checked="" type="checkbox"/> Server - requires OMProcessor and Payara (GlassFish)/JBoss <input type="checkbox"/> Front End - Web Portal - requires TI Front End

4. Get the database scripts from installation package from the \SqlServerScripts or \OracleScripts directory. Run them in the order specified in ReadMe.txt in the same

directory.

If you only install Foresight Operational Monitor, you get Common Administration as well.

Linking to Other Systems

On Transaction Insight's Transmissions page, a user might see some additional links at the end of the line:

# Bad	Original File Name	Original File Date	Link To
3			Archive Op Mon
3			Archive Op Mon

These are displayed if:

- The detail file in the file set had a file-level FSUID. See [Putting Tracking Information into the Input Files](#).
- The user has a role with the proper permissions

For Foresight Archive and Retrieval System - Archive User Search

For Foresight Operational Monitor OpMon User Search Events

On Foresight Operational Monitor's search results page, a user might see a link to Foresight Archive and Retrieval System. This displays the file on the Foresight Archive and Retrieval System Action page.

Original File Name	Link To
INVOIC-D11A-W3S2008-ELGP-SBOE-B1G1H15-ZRV-TM2.txt	Archive
ORDERS-D11A-W3S2008-SBOE-ELGP-B1G1H15-ZRV-TM2.txt	Archive
625-5052-W3S2008-WR-EPEP-15Docs-ZRV-TM2.txt	Archive

This is displayed if the user has Foresight Archive and Retrieval System User Search permission.

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 [TIBCO Product Documentation](#) website, mainly in HTML and PDF formats.

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

Product-Specific Documentation

The following documentation for this product is available on the [TIBCO Foresight® Operational Monitor Product Documentation](#) page:

- *TIBCO Foresight® Operational Monitor Release Notes*
- *TIBCO Foresight® Operational Monitor Administration*
- *TIBCO Foresight® Operational Monitor User Guide*

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- For creating a Support case, you must have a valid maintenance or support contract with TIBCO. You also need a user name and password to log in to [TIBCO Support](#) website. If you do not have a user name, you can request one by clicking **Register** on the website.

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