

Application Performance Management

New Feature

This is a new feature in **Joget DX Enterprise Edition**

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Introduction

Application Performance Management (APM) is a built-in feature that automatically monitors system and application performance. The monitoring is done at runtime, and alerts can be configured for various metrics including errors so that email notifications are sent when thresholds are exceeded.

How do I access the System APM?

JOGET DX ENTERPRISE Home | Inbox | Profile (admin) | Logout

Monitor Apps Manage Alert | Delete Data Last 4 hours

Running Processes
 Completed Processes
 Audit Trail
 Tomcat Logs
 System Logs
 Performance

JVM PERFORMANCE

—○— Heap Memory Usage
 —○— Free Physical Memory
 —○— Process CPU Load
 —○— System CPU Load

WEB REQUESTS PERFORMANCE

Name	Transaction Count	Average Time	Percent of Total Time	Throughput (per min)	Slow Traces	Errors
Overall	248	360.57ms	100.00%	1.03	126	7
APP : App Center	72	513.29ms	41.33%	0.30	4	0
APP : Expenses Claim	52	448.68ms	26.09%	0.22	17	7
APP : Customer Relationship Management	48	392.51ms	21.07%	0.20	1	0
APP : Test App	34	275.14ms	10.46%	0.14	0	0
Others						
web/userview/screenshot/29821670/v	7	29.89ms	0.23%	0.03	0	0
web/userview/screenshot/lms/lms	7	29.22ms	0.23%	0.03	0	0
web/userview/screenshot/calendarmenu/v	7	28.01ms	0.22%	0.03	0	0
web/userview/screenshot/mrb/v	7	24.17ms	0.19%	0.03	0	0
web/userview/screenshot/test/v	7	18.58ms	0.15%	0.03	0	0
web/userview/screenshot/loanc/v	7	4.12ms	0.03%	0.03	0	0

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All Apps | Users | Monitor | Settings

- Steps**
1. Log in as an administrator
 2. Open up the [Administrator Bar](#)
 3. Click on **Monitor**
 4. Click on **Performance**

How do I access to the APM in my App?

JOGET DX ENTERPRISE Home | Inbox | Profile (admin) | Logout

Design App: Expenses Claim Last 4 hours

Version 1 | Published

Forms & UI
Processes
Properties & Export

Performance
Logs
All Apps

WEB REQUESTS PERFORMANCE

Name	Transaction Count	Average Time	Percent of Total Time	Throughput (per min)	Slow Traces	Errors
Overall	177	249.18ms	100.00%	0.74	5	0
Expenses Claims App						
/da	1	3,076.60ms	6.98%	0.00	1	0
/new_claim	3	1,746.77ms	11.88%	0.01	1	0
/myin	16	1,532.07ms	55.58%	0.07	3	0
/	1	286.28ms	0.65%	0.00	0	0
/index	2	241.71ms	1.10%	0.01	0	0
/setupCategory	19	111.62ms	4.81%	0.08	0	0
/offline	28	110.51ms	7.02%	0.12	0	0
/pwaoffline	28	105.39ms	6.69%	0.12	0	0
/_/serviceworker	25	39.10ms	2.22%	0.10	0	0
/manifest	27	28.73ms	1.76%	0.11	0	0
/_/cacheUrls	27	21.69ms	1.33%	0.11	0	0

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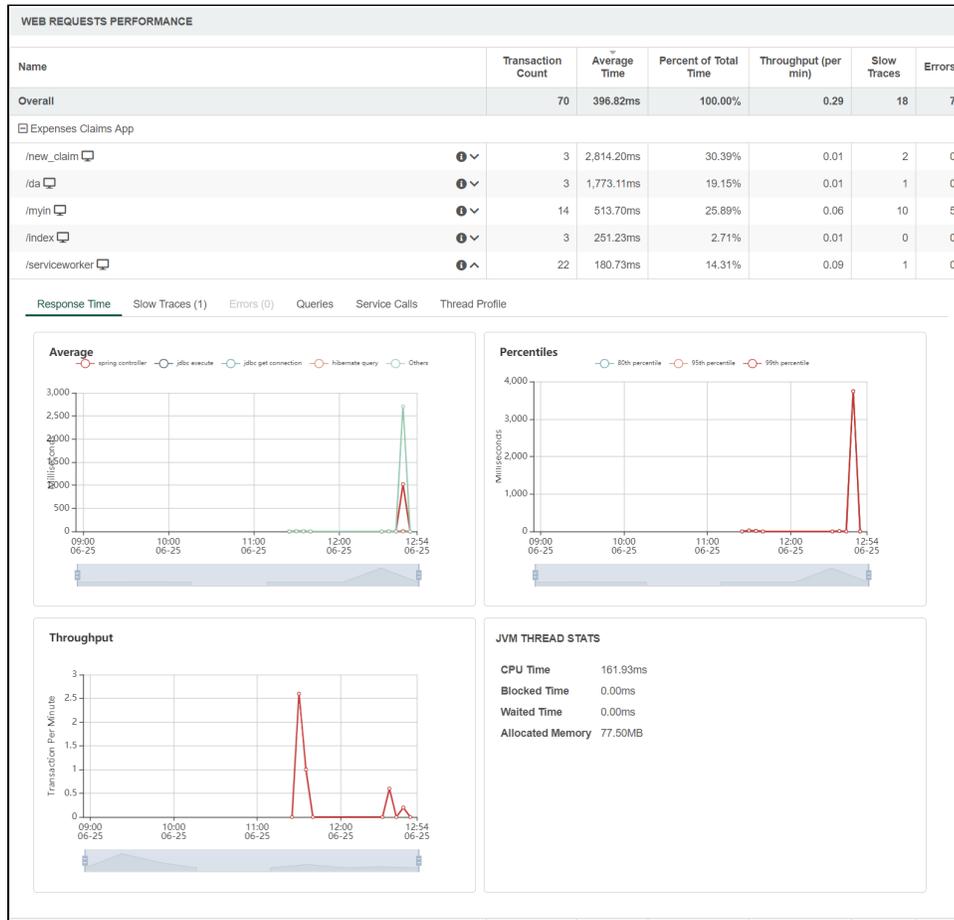
Steps

1. Log in as an administrator
2. Hover on an app until a pencil icon is displayed
3. Click on the pencil icon to access the **Design App**
4. Click on **Performance**
5. This will display performance information related only to the current App.

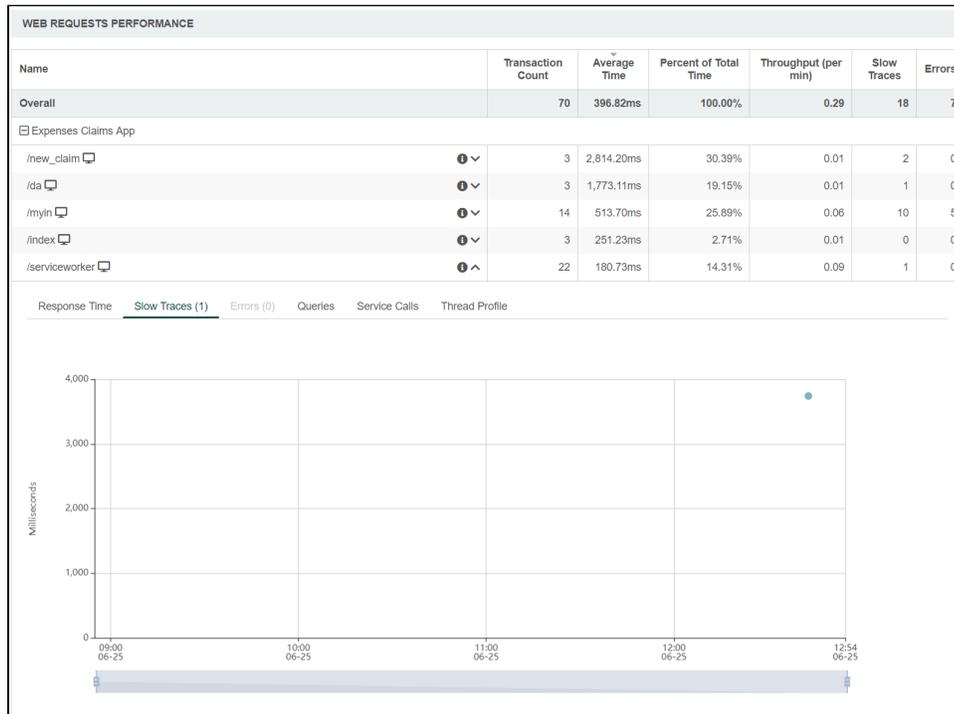
Web Request Performance

Features

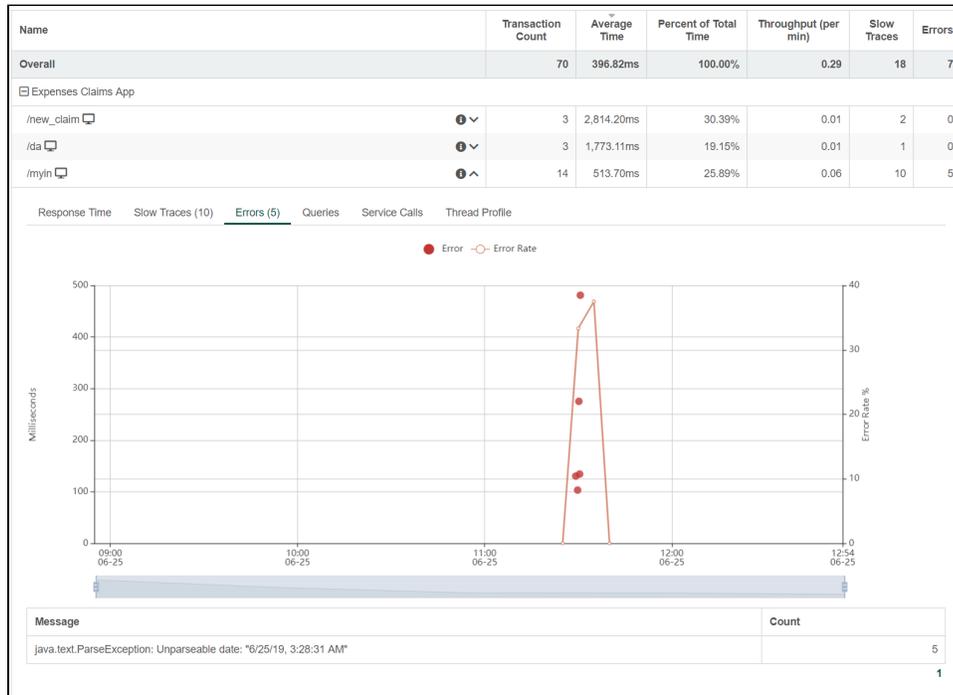
Response Time



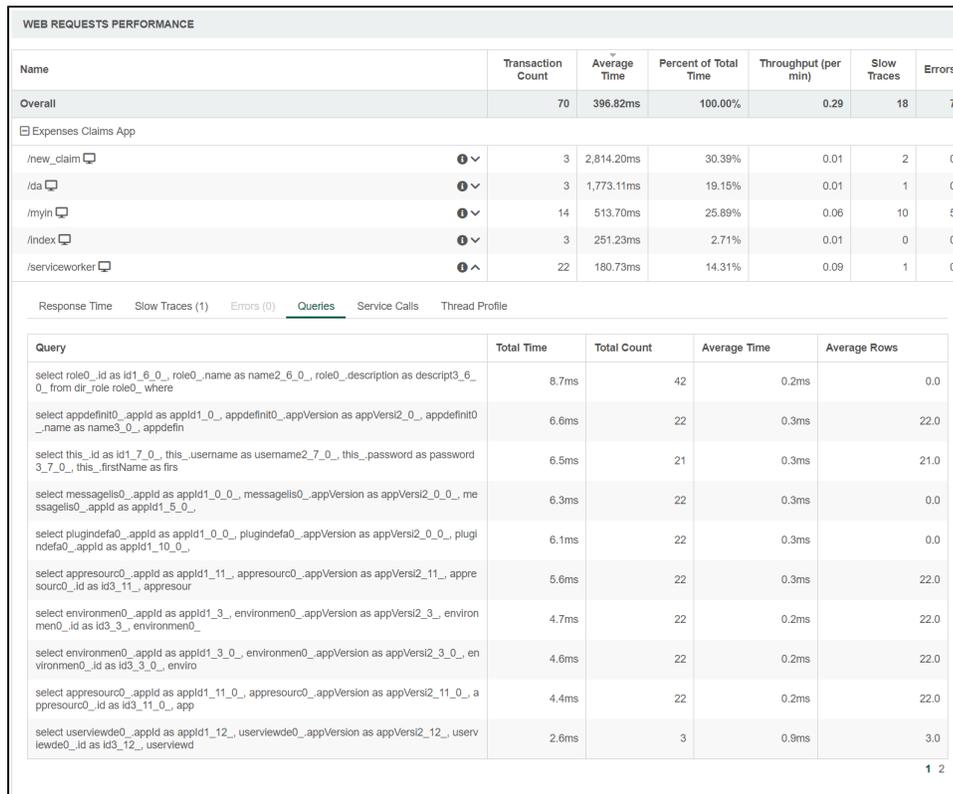
Slow Traces



Errors



Queries



Service Calls

WEB REQUESTS PERFORMANCE						
Name	Transaction Count	Average Time	Percent of Total Time	Throughput (per min)	Slow Traces	Errors
Overall	22	319.52ms	100.00%	0.09	1	0
Data						
/80F093084A3645A283B576CFDADB4D2C	2	1,978.23ms	56.28%	0.01	1	0
Response Time Slow Traces (1) Errors (0) Queries Service Calls Thread Profile						
	Total Time	Total Count	Average Time			
GET https://gist.sample.com/mshafnr/2646763/raw/8b0dbb93521f5d68889502305335104218454c2b/5states_titlecase.json	752.4ms	2	376.2ms			
GET https://gist.sample.com/user/c5cd8364bf9b2420bb29/raw/2bf258763cddd704f8fd3ea9a3e81d25e2c616/cities.json	438.8ms	2	219.4ms			
GET http://api.openweathermap.org/data/2.5/weather	181.9ms	4	45.5ms			
1						

Thread Profile

WEB REQUESTS PERFORMANCE						
Name	Transaction Count	Average Time	Percent of Total Time	Throughput (per min)	Slow Traces	Errors
Overall	70	396.82ms	100.00%	0.29	18	7
Expenses Claims App						
/new_claim	3	2,814.20ms	30.39%	0.01	2	0
/da	3	1,773.11ms	19.15%	0.01	1	0
/myin	14	513.70ms	25.89%	0.06	10	5
/index	3	251.23ms	2.71%	0.01	0	0
/serviceworker	22	180.73ms	14.31%	0.09	1	0
Response Time Slow Traces (1) Errors (0) Queries Service Calls Thread Profile						
100.0% java.lang.Thread.run(Thread.java:834) ... 75.0% org.joget.commons.util.AnalyzerAspect.analyzeRequests(AnalyzerAspect.java:49) ... 50.0% org.joget.apps.app.service.AppDevUtil.gitInit(AppDevUtil.java:172) 25.0% org.eclipse.jgit.api.InitCommand.call(InitCommand.java:85) ... RUNNABLE 25.0% org.eclipse.jgit.api.InitCommand.call(InitCommand.java:123) ... RUNNABLE 25.0% org.joget.apps.app.service.AppDevUtil.gitInit(AppDevUtil.java:170) ... RUNNABLE 25.0% org.joget.commons.util.AnalyzerAspect.analyzeRequests(AnalyzerAspect.java:55) ... RUNNABLE						

Download Slow / Error Trace

For further analysis, the slow / error trace can be downloaded by clicking on the bubble on the chart itself. Then, click on the download link to download.

Slow Traces (2) **Errors (1)** Queries Service Calls Thread Profile

/JWWEB/USERVIEW/FEEDBACK/V/_/FEEDBACK_CRUD
⚠
✕

Transaction type : Web
Transaction name : http://localhost:8080/jw/web/userview/feedback/v/feedback_crud
Start : Fri Oct 01 2021 20:20:10 GMT+0800 (Malaysia Time)
Duration : 106.96ms
Request http method : GET
Request parameters :
 userviewId : v
 appld : feedback
 menuId : feedback_crud
 key : _
Response code : 200
Breakdown :

	total (ms)	Count
http request	106.96	1
servlet dispatch	105.96	9
jsp render	104.68	8
spring controller	64.56	2
jdbc query	11.55	35
logging	10.29	6
hibernate query	0.47	1
jdbc get connection	0.42	36

JVM Thread Stats :
 CPU Time : 91.84ms
 Blocked Time : 0.00ms
 Waited Time : 0.00ms
 Allocated Memory : 26.43MB

Trace entries (61)

Application Performance Management (APM) properties



Manage Alert	Set up an email Performance Alert notification. <div style="border: 1px solid #ccc; padding: 5px; background-color: #fff9c4;">  Note This is only available in the System (APM) under the Monitor > Performance menu. </div>
Delete Data	A prompt will be displayed to confirm the deletion of performance data. <div style="border: 1px solid #ccc; padding: 5px; background-color: #fff9c4;">  Note This is only available in the System (APM) under the Monitor > Performance menu. </div>
	<ul style="list-style-type: none"> • Last 30 minutes • Last 60 minutes • Last 2 hours • Last 4 hours • Last 8 hours • Last 24 hours • Last 2 days • Last 7 days • Last 30 days

Performance Alert

Manage Alert

PERFORMANCE ALERT ×

Manage Alert
SMTP

Name	Time Period (mins)	Threshold
No data available.		

Add Alert

Name	Description
Add Alert	Setup an alert

Add Alert

PERFORMANCE ALERT ✕

Manage Alert
SMTP

Add Alert ⊞

Metric * ?

Threshold * ?

Lower Bound Threshold? ?

Time Period (mins) * ?

Severity *

Email Notification * ?

Save
Cancel

Name	Description
Metric	<p>The metric that this alert monitors.</p> <p><u>Available Metrics:</u></p> <ul style="list-style-type: none"> • Error Count • Error Rate (%) • Heap Memory Usage (MB) • Free Physical Memory (MB) • Process CPU Load • System CPU Load
Threshold	If the metric value over the given time period is greater than or equal to this threshold, then alert will be triggered
Lower Bound Threshold?	Alert if the metric value is less than or equal to the threshold, instead of alerting if it is greater than or equal to the threshold.
Time Period (mins)	The time period over which the metric is calculated.
Minimum Transaction Count	<p>Time periods with very few transactions have much less meaningful metrics, so this can be used to suppress alerts from being generated unless the time period has a minimum transaction count.</p> <div style="border: 1px solid #ffc107; padding: 10px; margin-top: 10px;"> <p> Note</p> <p>This field will be displayed if Error Rate (%) is selected in the Metric field.</p> </div>
Severity	<ul style="list-style-type: none"> • Critical • High • Medium • Low
Email Notification	A comma-separated list of email addresses.

SMTP



If no SMTP settings are configured here, this tool will read the SMTP configuration in the "General Settings".

You may configure common SMTP settings in "General Settings > SMTP Settings" for your future convenience.

PERFORMANCE ALERT ✕

Manage Alert SMTP

Configure SMTP ⌵

Host *	<input type="text"/>
Port *	<input type="text"/>
Security	<input type="text" value="None"/>
Username *	<input type="text"/>
Password *	<input type="password" value="....."/>
Form Email Address *	<input type="text"/>
Form Display Name	<input type="text"/>

Send Test Email

Save

Name	Description
Host	Email Server SMTP Host <div> Example smtp.gmail.com</div>
Port	Email Server SMTP Port <div> Typically, port 465 for SSL security option and 587 for TLS</div>
Security	<ul style="list-style-type: none">• None• TLS• SSL
Username	Email Server Account Username <div> On Google email account, use your full email address.</div>

Password	Email Server Account Password  Password submitted will be encrypted for security reason.
From Email Address	sender email address  Example no-reply@your-company-name.com
From Display Name	sender display name  Example Info No Reply



Quick Test

Hit on the "Send Test Email" button to quickly validate and test out your email settings.