

AppMetrics® TEST PLAN

For Developers Diagnostics and Real-time monitoring

The following plan provides guidance on testing features and functions of the AppMetrics product to determine its applicability in a specific environment.

"Transactions abort but I cannot tell exactly which ones and how often."

AppMetrics provides the following features for detecting aborts in your application:

- Diagnostic Reporting
- Early Warning for Hung Components
- Real-Time User Interface Console

STEPS

- A. Run the reports to show aborts.
- B. Set up early warning to alert for aborts.
- C. Look for aborts in the User Interface.

A. Run the reports to show aborts

- From the Start menu, select Programs ->Xtremesoft ->AppMetrics for Transactions -> AppMetrics Reports.
- If you receive a prompt about macros, click the option to enable macros. Within the Excel window, the AppMetrics Reports dialog opens.

AppMe	trics Report	s	×
Server	Dataset Time	Filter Report	(S
Data	abase Server		
O N	Authentication		
• so	L Authentication	ı	
SQL U	ser: sa		
Passw	ord: ****	****	

Creating AppMetrics Reports for Monitors

The AppMetrics Reports dialog enables you to create a specific set of reports. It contains the tabs where you choose the server name, dataset (i.e. monitor name), time period, and report set. Once you enter the information in this dialog, you can then create the reports.

Note: You should complete each dialog tab in consecutive order, starting with the Manager tab before proceeding to the next. The following four subsections describe each tab.

Server Tab

The Server tab (as shown above is where you choose the machine that runs the monitor. To view reports for a monitor on the local machine, leave the field blank. To view reports for a monitor on another machine, specify the machine's name and the type of authentication. **Notes**

If you enter a name and then click another tab, AppMetrics Reports will try to connect to the specified machine. While this occurs, it may take several seconds before activity in the dialog resumes.

- If AppMetrics is not installed on the machine, a prompt will notify you about the situation.
- If AppMetrics is installed on the machine, but none of its monitors are configured to upload data to the database, then a prompt will notify you about the situation.

AppM	etrics Re	ports		×
Serve	r Dataset	Time Filter	Reports	
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ma	ster			•
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After specifying the server name, you can then select the dataset whose reports you want to view. The datasets that are listed in the Monitor drop-down list have the following attributes:

- They reside on the specified server
- They were configured to upload data to the database (via the monitor's Logging Configuration panel)

To choose the dataset, click the drop-down arrow and select the monitor.

After choosing both the server name and dataset, you can select the time period of the data to be viewed. The tab provides dates and times that are available for the chosen monitor in the Dataset tab.

AppMetrics Rej	ports	×	I
Server Dataset	Time Filter	Reports	
Start date	1/17/200	03 00:00	
End date	1/18/200	03 00:00	

After completing the information in the first three tabs, you can then select which reports to generate. The list of available reports in this tab depends on the monitor type chosen in the Dataset tab. Each report results in its own worksheet in the Excel window. By default, all the reports are selected. If desired, you can deselect the ones you do not want to generate.

AppMetrics Reports	×
Manager Dataset Time Filter Report	:s
 Summary Applications Transactions AllTransactions Components 	ŝo

After you complete the information in all four tabs, click **Go** in the Reports tab. AppMetrics Reports will gather the data based on your specified criteria and then create the reports. It may take several seconds to several minutes before the Excel window displays the reports. The length of the delay will depend on the amount of data to be loaded. In the case of monitors on non-local machines, the delay may also depend on network activity.

Note: When loading data generated by a monitor, you may receive warning prompts indicating that data was not found. This may occur if you selected a report in the Reports tab that corresponds to an ignored item. For example, if you choose Components in the Reports tab, but the monitor selected in the Dataset tab is configured to ignore components, then when you generate the report, AppMetrics informs you that no data could be found for components. When these messages appear, they can be ignored, and no report will be generated for the missing items.



What are the screens I would expect to see?

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3		Methods	Analvsi	s Repor	t			
			-	-				
4		FM:	Stocks Di	aq				
5			0:00 AM to 12/13/20	-				
6		1211312002 11.0	0.00 API (0 12110120	02 11.02.00 71-1				
7	•	The Currently Charted Package	is'	FMStocks 200	l Core			
8		The currently charten's denage	131	10000000 200	0.000			
9								
10								
11								
12	Transaction	Method	StartTime		Relative Start (ms)		Duration (ms)	Error
13		FMStocks_Bus.Account->GetSummary	12/13/2002 11:00:00	12/13/2002 11:00:00	117.09375	191.390625	74.296875	0
14		FMStocks_DB.Account->Summary	12/13/2002 11:00:00	12/13/2002 11:00:00	127.875	190.6152344	62.74023438	0
15		FMStocks_DB.DBHelper->RunSPReturn	12/13/2002 11:00:00	12/13/2002 11:00:00	131.4433594	190.4140625	58.97070313	0
16	FMStocks_Bus.Accoun		12/13/2002 11:00:00	12/13/2002 11:00:00	0	229.484375	229.484375	0
17		FMStocks_Bus.Account->ListPositions	12/13/2002 11:00:00	12/13/2002 11:00:00	131.453125	208.9648438	77.51171875	0
8		FMStocks_DB.Position->ListSummary	12/13/2002 11:00:00	12/13/2002 11:00:00	138.7226563	206.4589844	67.73632813	0
9		FMStocks_DB.DBHelper->RunSPReturn	12/13/2002 11:00:00	12/13/2002 11:00:00	138.859375	206.2402344	67.38085938	0
20	FMStocks_Bus.Accoun		12/13/2002 11:00:01	12/13/2002 11:00:01	0	166.4375	166.4375	0
21		FMStocks_Bus.Account->GetSummary	12/13/2002 11:00:01	12/13/2002 11:00:01	74.5390625	147.4023438	72.86328125	0
22		FMStocks_DB.Account->Summary	12/13/2002 11:00:01	12/13/2002 11:00:01	84.81835938	146.1054688	61.28710938	0
23		FMStocks_DB.DBHelper->RunSPReturn	12/13/2002 11:00:01	12/13/2002 11:00:01	88.03710938	145.9042969	57.8671875	0
24	FMStocks_Bus.Accoun		12/13/2002 11:00:01	12/13/2002 11:00:01	0	265.0429688	265.0429688	0
25		FMStocks_Bus.Account->ListPositions	12/13/2002 11:00:01	12/13/2002 11:00:01	121.8808594	213.1875	91.30664063	0
26		FMStocks_DB.Position->ListSummary	12/13/2002 11:00:01	12/13/2002 11:00:01	128.6132813	211.9746094	83.36132813	0
27		FMStocks_DB.DBHelper->RunSPReturn	12/13/2002 11:00:01	12/13/2002 11:00:01	128.75	211.7539063	83.00390625	0
28	FMStocks_Bus.Ticker		12/13/2002 11:00:01	12/13/2002 11:00:01	0	532.2929688	532.2929688	0
29		FMStocks_Bus.Ticker->VerifySymbol	12/13/2002 11:00:01	12/13/2002 11:00:01	272.3378906	288.2265625	15.88867188	0
30		FMStocks_DB.Ticker->VerifySymbol	12/13/2002 11:00:01	12/13/2002 11:00:01	278.6386719	287.7421875	9.103515625	0
31	L	FMStocks_DB.DBHelper->RunSPReturn	12/13/2002 11:00:01	12/13/2002 11:00:01	278.7832031	287.5644531	8.78125	0
32		FMStocks_Bus.Broker->BugStock	12/13/2002 11:00:01	12/13/2002 11:00:01	440.8730469	494.8320313	53.95898438	0
33	L	FMStocks_DB.Tx->AddBuyOrder	12/13/2002 11:00:01	12/13/2002 11:00:01	459.34375	473.3574219	14.01367188	0
34		FMStocks_DB.DBHelper->RunSPReturn	12/13/2002 11:00:01	12/13/2002 11:00:01	459.5371094	473.1503906	13.61328125	0
35	ļ	FMStocks_DB.Ticker->GetPrice	12/13/2002 11:00:01	12/13/2002 11:00:01	473.7070313	484.7089844	11.00195313	0
36		FMStocks_DB.DBHelper->RunSPReturn	12/13/2002 11:00:01	12/13/2002 11:00:01	473.8320313	484.5214844	10.68945313	0
37		FMStocks_DB.Broker->Buy	12/13/2002 11:00:01	12/13/2002 11:00:01	485.03125	494.1191406	9.087890625	0
38		FMStocks_DB.DBHelper->RunSPReturn	12/13/2002 11:00:01	12/13/2002 11:00:01	485.2597656	493.8730469	8.61328125	0
39	FMStocks_Bus.Accoun		12/13/2002 11:00:02	12/13/2002 11:00:02	0	163.6582031	163.6582031	0
40		FMStocks_Bus.Account->ListPositionsF	12/13/2002 11:00:02	12/13/2002 11:00:02	100.2578125	142.5214844	42.26367188	0
41		FMStocks_DB.Position->ListForSale	12/13/2002 11:00:02	12/13/2002 11:00:02	106.7441406	140.5859375	33.84179688	0
42	FLOCAL DUTY	FMStocks_DB.DBHelper->RunSPReturn	12/13/2002 11:00:02	12/13/2002 11:00:02	106.8769531	140.3378906	33.4609375	0
	FMStocks_Bus.Ticker		12/13/2002 11:00:02	12/13/2002 11:00:02	0	430.1171875	430.1171875	0
44		FMStocks_Bus.Ticker->VerifySymbol	12/13/2002 11:00:02	12/13/2002 11:00:02	132.6152344	149.328125	16.71289063	0
(I ▶ ▶ ∧ MainSheet	/ Transactions / Components /	1ethods /			•		

B. Early Warning for Hung Components (Alerting)

- In the left-pane navigation tree, expand the following: **AppMetrics Console -> Application Monitors -> Your Application Monitor**.
- Once the Monitor is expanded click on **Notification.**
- Click on the How tab and then ADD to add notification. The following dialog box will appear.

🐺 Add delivery mecha	nism 💌
Select delivery mechanism:	SNMP Manager 🔹
Priority:	SNMP Manager Component SMTP Mail Windows Event Log
	OK Cancel

- Change the delivery mechanism for one of the following: SNMP Trap Component SMTP Mail Windows Event Log
- After adding the mechanism you must then configure it. The following dialog box appears.

🚝 Configure SMTP Mail	×
Mail Sent From:	AppMetrics for Transactions
Outgoing SMTP Host:	notes.xtremesoft.com
SMTP Port:	25
Priority:	Low
	OK Cancel

- Fill in the appropriate information.
- Set email address of recipient for the alerts by clicking on the message ID and then clicking the configure button. The three message id's are Process Threshold Exceeded, Process Threshold warning, and Threshold Exceeded.

🐺 Configure Recipie	ents X
Message ID:	ThresholdExceeded
Message Template:	Item "\$\$sinkname\$\$" has exceeded i
Recipients: name@	yourcompany.com
	OK Cancel

Enable notification logging if you would like a log of all notifications sent out by ٠ clicking on the logging tab and checking the logging enabled box. Do not forget to hit "Apply" so that all your changes will take effect.

AppMetrics - [Console Root\AppMetrics Cons	ole\Application Monitors\Sample Bank\Notification]	
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Running on Local	How Who Logging	
Documentation Application Monitors		
🗄 💻 FMStocks Manager	Notification Logging Configuration	
⊕	Logging enabled: 🔽	
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🕀 🚛 Demo2 Agent	Logfile: D:\Program Files\Xtremesoft\data\Sample Ba	.nk vnotirications.log
⊡ - — Demo1 Manager ⊡ - — ■ Sample Bank		
Detail		
ີ່ເຈັ້ງ Notification 		
🕀 💻 sample bank diag		
in → → → → → → → → → → → → → → → → → → →	Apply	Cancel
J]		

- Now click the "Benchmarks and Thresholds. •
- Set your thresholds based on "All Transactions", Specific "Transactions", ٠ "Components", and "Application". Hit the "Apply" button when done setting thresholds.
- •
- When the monitor is started and the thresholds are exceeded the notifications will be • sent out.

What are the screens I would expect to see?

AppMetrics Notification from server \\BOBLTW2	2K - Message (Plain Text)	
Eile Edit View Insert Format Tools Actions Help		
😥 Reply 🧟 Reply to All 😡 Forward 🎒 🖹	* P × + • • K Q •	
From: blowell	Sent: Mon 7/9/2001 2:41 PM	
To: blowell Cc:		
Subject: AppMetrics Notification from server \\BOBLTW2K	<	
Item "Bank.CreateTable" has exceeded Interval" on server <u>\\BOBLTW2K</u> .	d its threshold for "Aborted in an	4

C. Real-time interface Console

- From the Start menu, select Programs ->Xtremesoft ->AppMetrics for Transactions ->AppMetrics for Transactions 2.5.7
- A right-click on a monitor's name presents the pop-up menu. Clicking on Start Monitor starts the monitor. In a few seconds the monitor's icon changes, and the monitor starts generating metrics.
- After starting the monitor the UI will have 6 tabs. Applications, All Transactions, Transactions, Components, In Call, and Log file as seen in the following screen.

☆ 前 AppMetrics - [Console Root\AppMetrics Cons	ole\Application Monitors\Sample Ban	<]						эп		
Console Window Help										_ 8 ×
<u>Action</u> ⊻iew Eavorites	E S									
Tree Favorites						_				
Console Root	Applications All Transactions Transac	ions I	Compone	ents In Call	Log File	•				
🗄 < AppMetrics Console	Name	CPU	Mem	Virtual Bytes	Fault T	hread A	ctive S	tart S	top Cr.	ash
Running on Local	COM+ QC Dead Letter Queue Listener	0		0	0	0	N	0	0	0
- 😭 Documentation	FMStocks 2000 Core	0	0	0	0	0	N	0	0	0
E Application Monitors	FMStocks 2000 Office Extensions	0	0	0	0	0	N	0	0	0
	FMStocks 2000 Store Shopping Cart	0	0	0	0	0	N	0	0	0
🖃 🧮 Sample Bank	IIS In-Process Applications	0	0	0	0	0	N	0	0	0
	IIS Out-Of-Process Pooled Applications	0	0	0	0	0	N	0	0	0
Benchmarks and Thresholds	Sample Bank	8	7872	51380224	86	19	Y	1	0	0
Applications	System Application	2	5280	32980992	0	15	Y	1	0	0
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Logging Options										
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FMStocks Agent										
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Application Monitor Templates										
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• By clicking on the All Transactions, Transactions, and components tabs you can see what aborts are happening with what specific transactions or components.

What are the screens I would expect to see?

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Tree Favorites Console Root Applications AppMetrics Console Applications Running on Local Documentation PMStocks Manager This Session Current 1 Maximum 0 Maximum 1 Last Interval Active Benchmarks and Thresholds Applications Applications Eesting Extending agent Maximum FmStocks diag Started Sample bank diag Completed Extending Started Demo2 Agent Completed Demo1 Manager Aborted	∫ 🚰 ⊆onsole <u>W</u> indow <u>H</u> elp) D 🖨 🖬 🛙	_ - - - - - - - - - -
Applications All Transactions Components In Call Log File Applications Console Applications Components In Call Log File This Session This Session Current This Session This Session Current This Session Current This Session Current This Session Current This Session Thi] <u>A</u> ction <u>V</u> iew <u>E</u> avorites] ⇐ ⇒ €	B	
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in AppMetrics - [Console Root\AppMetrics Cons	ole\Application Monitors\Sample Bank]
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📸 AppMetrics - [Console Root\AppMetrics Cons	ole\Application Monitors\Sample Bank]
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Action ⊻iew Eavorites	ß
Tree Favorites Console Root AppMetrics Console Running on Local Documentation Mapple and Application Monitors FMStocks Manager Sample Bank Detail Benchmarks and Thresholds Applications Kusting Options Eesting Options Extended FMStocks dag FMStocks dag Sample bank diag Exting Eesting agent FMStocks dag Sample bank diag Exting Exting agent FMStocks dag Sample bank diag Exting Exting Agent Exting Exting agent	Applications All Transactions Tonsactions Components In Call Log File Application: Component: Sample Bank Image: Components Image: Components Image: Components This Session Image: Components Image: Components Image: Components Image: Components Image: Components Current Image: Components Image: Component
Done	