

IBM ECM System Monitor V5.5.5.x

Design Considerations for your Monitoring Console

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Prerequisites

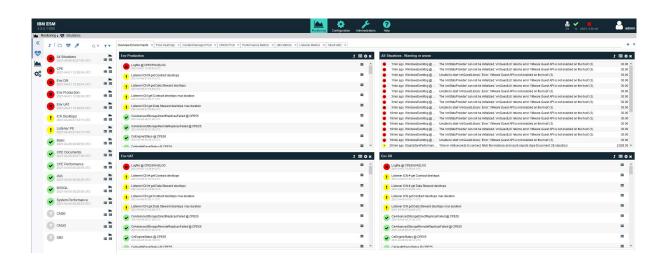
This guide is for customers running IBM ECM System Monitor (ESM) V5.5.5.x. The bar charts became available with V5.5.5.1.

If you need any help with the design and implementation of ESM, including training, please contact CENIT at <u>ECM.SystemMonitor@cenit.com</u>.

Design Considerations

With V5.5.5 ESM provides multiple options for the dashboards in your monitoring console:

- Heatmap for high-level overview
- Managed Areas aggregated view into situation groups
- Event List detailed event list for situations or situation groups
- Live Chart graphical chart for quantitative metrics from situations or situation groups
- Bar Chart graphical chart for quantitative metrics from situations (V5.5.5.1 only)



In your monitoring console you can have multiple dashboards. Using the different types above enables you to easily switch from high-level overviews to specific details.

						L	onitoring	Configuration	Administration
Overview ×	Heatmap	х	Content Manager PROD	х	CMOD PROD	х	Performa	nce Metrics 🗙	Listener Metrics ×

How you group the events collected in situations into logical managed areas (=situation groups) determines how you can structure your dashboards. Managed areas can be e.g. environments (e.g. Production, DR, QA, Test, ...) or components (e.g. CPE, ICN, WAS, Database, CMOD Library Server, CMOD Object Server, TSM, System, ...) or groups of systems (e.g. all my CPE in my Production farm).

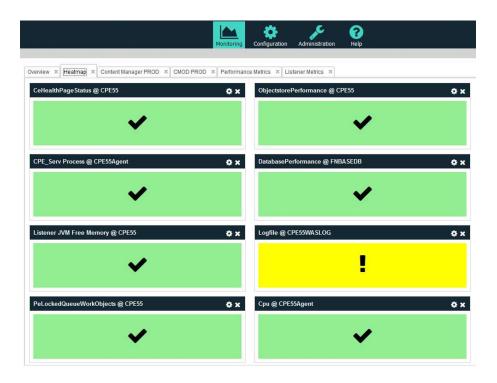


Heatmap

The heatmap dashboard is ideal to get a very fast overview at-a-glance. It enables you to quickly identify if an incident has a significant impact on your service quality.



However this heatmap is not used to work with incidents. It is just to get a single pane of glass on a particular area, e.g. a production environment. You can show situation groups – as in the example above for CM8, DB2, WAS, and TSM – or single situations as below for various situations on a CPE.

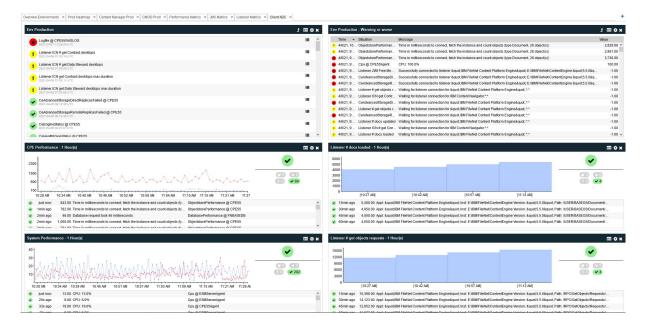


Overview Dashboard

In an Overview Dashboard you could combine several portlets, e.g. showing portlets with Managed Areas for your various environments and an event list showing all situations with a severity of "warning" or higher. In both Managed Areas and Event Lists you can filter for the severity.

Production	🗙 💠 🗐 t	All Situations - Warning or worse	1 🔳 🔅 🗙
JVM FreeMemory MBeanAttribute @ CM86JMX	· •	Time - Situation Message	Value
2019-08-20 04:50:08 UTC		9min ago ObjectstorePerforman Time in milliseconds to connect, fetch the instance and count object	3,016.00 ^
Listener # docs being indexed	-	13min ago ObjectstorePerforman Time in milliseconds to connect, fetch the instance and count object	4,860.00
2020-08-10 08:08:10 UTC		13min ago Windows System Even The Data Sharing Service service terminated with the following error	30.00
Listener # docs processed 2020-08-10 08:08:10 UTC		13min ago Windows System Even The Data Sharing Service service terminated with the following error	30.00
2020-08-10 08:08:10 010		13min ago Windows System Even The Data Sharing Service service terminated with the following error	30.00
OnDemandServiceStatus @ CMoD101 2019-08-19 05:38:08 UTC	-	14min ago Cpu @ ESMServerAgent CPU: 90.0%	90.00
	-	15min ago Cpu @ ESMServerAgent CPU: 90.0%	90.00
Logfile @ CPE55WASLOG 2020-07-23 05:45:16 UTC		1 15min ago ObjectstorePerforman Time in milliseconds to connect, fetch the instance and count object	2,640.00
		1 15min ago Cpu @ ESMServerAgent CPU: 86.0%	86.00
CeAdvancedStorageDirectReplicasFailed @ CPE55 2020-08-10 08:15:51 UTC	-	15min ago Cpu @ ESMServerAgent CPU: 93.0%	93.00
		1 15min ago Cpu @ CPE55Agent CPU: 52.0%	52.00
CeAdvancedStorageRemoteReplicasFailed @ CPE55 2020-08-10 08:15:52 UTC	-	1 16min ago Cpu @ ESMServerAgent CPU: 89.0%	89.00
CeEngineStatus @ CPE55		16min ago ObjectstorePerforman Time in milliseconds to connect, fetch the instance and count object	3,312.00
2020-08-10 08:26:19 UTC	-	1 16min ago Cpu @ ESMServerAgent CPU: 77.0%	77.00
CeHealthPaneStatus @ CPE55		1 16min ago Cpu @ ESMServerAgent CPU: 60.0%	60.00 🗸
r DR - Warning or worse	× 🌣 🖿 t	Env UAT	×≎≣t
JVM FreeMemory MBeanAttribute @ CM86JMX 2019-08-20 04-50-08 UTC	=	JVIN FreeMemory MBean Attribute @ CM86JMX 2019-08-20 04:50 08 UTC	· · ·
Listener # docs being indexed 2020-08-10 08:08:10 UTC	=	Listener#docs being indexed 2020-08-10 08:08:10 UTC	
Listener # docs processed 2020-08-10 08-08-10 UTC	=	Listener#docs processed	
OnDemandServiceStatus @ CMoD101	=	OnDemandServiceStatus @ CMoD101	

Or you could combine Managed Areas, Event Lists and Charts.



Like the Heatmap this Overview Dashboard would also provide an at-a-glance view on your ecosystem, but with far more details regarding the components affected. And from these portlets you can directly access incidents.

Managed Areas

You can show situations related to a logical area (situation group) in one portlet, e.g. all situations related to a Production environment or related to a FileNet Content Platform Engine.

v Production	¢⊅≣ t
JVM FreeMemory MBeanAttribute @ CM86JMX 2019-08-20 04:50:08 UTC	≡ ′
Listener # docs being indexed 2020-08-10 08-08:10 UTC	
Listener # docs processed 2020-08-10 08:08:10 UTC	
OnDemandServiceStatus @ CMoD101 2019-08-19 05:38:08 UTC	
Logfile @ CPE55WASLOG 2020-07-23 05:45:16 UTC	i=
CeAdvancedStorageDirectReplicasFailed @ CPE55 2020-08-10 08:15:51 UTC	
CeAdvancedStorageRemoteReplicasFailed @ CPE55 2020-08-10 08:15:52 UTC	i=
CeEngineStatus @ CPE55 2020-08-10 08:26:19 UTC	=
CeHealthPageStatus @ CPE55	

PE	×¢≣ t
Listener # docs being indexed 2020-08-12 11:44:29 UTC	· · · · · · · · · · · · · · · · · · ·
Listener # docs processed 2020-08-12 11:44:29 UTC	
Logfile @ CPE55WASLOG 2020-07-23 05:45:16 UTC	
CeAdvancedStorageDirectReplicasFailed @ CPE55 2020-08-12 11:46:10 UTC	
CeAdvancedStorageRemoteReplicasFailed @ CPE55 2020-08-12 11:45:10 UTC	
CeEngineStatus @ CPE55 2020-08-12 11:48:48 UTC	
CeHealthPageStatus @ CPE55 2020-08-12 11:40:45 UTC	=
CPE_Serv Process @ CPE55Agent 2020-08-12 11:48:00 UTC	
CDU @ CPE55Agent	= *

From such a Managed Area portlet you can directly access the event list for this situation group or for a specific situation to drill down in the troubleshooting process.



Event List

The Event List shows you all events for a situation group or a single situation in a chronological list.

Time	• •	Situation	Message	Value
2r	min ago	Listener JVM Free Me	Successfully connected to listener "IBM FileNet Content Platform En	-1.00
2r	min ago	CeAdvancedStorageDi	Successfully connected to listener "IBM FileNet Content Platform En	-1.00
2r	min ago	CeAdvancedStorageR	Successfully connected to listener "IBM FileNet Content Platform En	-1.00
2r	min ago	Listener # docs proces	Successfully connected to listener ECMTS::5.2.1	-1.00
2r	min ago	Listener # docs being i	Successfully connected to listener ECMTS::5.2.1	-1.00
2r	min ago	Listener # docs being i	Waiting for listener connection for ECMTS:*:*	-1.00
2r	min ago	CeAdvancedStorageDi	Waiting for listener connection for "IBM FileNet Content Platform Eng	-1.00
2r	min ago	CeAdvancedStorageR	Waiting for listener connection for "IBM FileNet Content Platform Eng	-1.00
2r	min ago	Listener # docs proces	Waiting for listener connection for ECMTS:*:*	-1.00
3r	min ago	Listener JVM Free Me	Waiting for listener connection for "IBM FileNet Content Platform Eng	-1.00
45r	min ago	ObjectstorePerforman	Time in milliseconds to connect, fetch the instance and count object	2,718.00
45r	min ago	Listener JVM Free Me	Successfully connected to listener "IBM FileNet Content Platform En	- <mark>1.0</mark> 0
45r	min ago	CeAdvancedStorageR	Successfully connected to listener "IBM FileNet Content Platform En	-1.00
45r	min ago	Listener # docs proces	Successfully connected to listener ECMTS::5.2.1	-1.00
45r	min ago	Listener # docs being i	Successfully connected to listener ECMTS::5.2.1	-1.00

Filtering situations to show only incidents with a severity of "warning" or higher makes sure that you see only incidents relevant for the current operation of your platform. In other words – you do not miss the forest for the trees and can identify the root cause of the problem quicker.

	Time 👻	Situation	Message	Value
0	3min ago	DatacapPagesProcess	Task : 0 pages Task iVScan: 0 pages Task Upload: 0 pages Task VScan: 0 pages Task Profiler: 0 pages Task Verify:	0,00
0	8min ago	DatacapPagesProcess	Task : 0 pages Task iVScan: 0 pages Task Upload: 0 pages Task VScan: 0 pages Task Profiler: 0 pages Task Verify:	0,00
0	13min ago	DatacapPagesProcess	Task : 0 pages Task IVScan: 0 pages Task Upload: 0 pages Task VScan: 0 pages Task Profiler: 0 pages Task Verify:	0,00
0	18min ago	DatacapPagesProcess	Task : 0 pages Task IVScan: 0 pages Task Upload: 0 pages Task VScan: 0 pages Task Profiler: 0 pages Task Verify:	0,00
~	23min ago	DatacapPagesProcess	Task : 0 pages Task iVScan: 0 pages Task Upload: 0 pages Task VScan: 0 pages Task Profiler: 0 pages Task Verify:	0,00
-	28min ago	DatacapPagesProcess	Task : 0 pages Task iVScan: 0 pages Task Upload: 0 pages Task VScan: 0 pages Task Profiler: 0 pages Task Verify:	0,00
	33min ago	DatacapPagesProcess	Task : 0 pages Task iVScan: 0 pages Task Upload: 0 pages Task VScan: 0 pages Task Profiler: 0 pages Task Verify:	0,00
•	38min ago	DatacapPagesProcess	Task : 0 pages Task iVScan: 0 pages Task Upload: 0 pages Task VScan: 0 pages Task Profiler. 0 pages Task Verify:	0,00
•	43min ago	DatacapPagesProcess	Task : 0 pages Task iVScan: 0 pages Task Upload: 0 pages Task VScan: 0 pages Task Profiler: 0 pages Task Verify:	0,00
0	48min ago	DatacapPagesProcess	Task : 0 pages Task iVScan: 0 pages Task Upload: 0 pages Task VScan: 0 pages Task Profiler: 0 pages Task Verify:	0,00
0	53min ago	DatacapPagesProcess	Task : 0 pages Task IVScan: 0 pages Task Upload: 0 pages Task VScan: 0 pages Task Profiler: 0 pages Task Verify:	0,00
0	58min ago	DatacapPagesProcess	Task : 0 pages Task IVScan: 0 pages Task Upload: 0 pages Task VScan: 0 pages Task Profiler: 0 pages Task Verify:	0,00
•	10.03.21,	DatacapPagesProcess	Task : 0 pages Task iVScan: 0 pages Task Upload: 0 pages Task VScan: 0 pages Task Profiler: 0 pages Task Verify:	0,00
•	10.03.21,	DatacapPagesProcess	Task : 0 pages Task IVScan: 0 pages Task Upload: 0 pages Task VScan: 0 pages Task Profiler: 0 pages Task Verify:	0,00
~	10.03.21,	DatacapPagesProcess	Task : 0 pages Task iVScan: 0 pages Task Upload: 0 pages Task VScan: 0 pages Task Profiler: 0 pages Task Verify:	0,00

Live Chart

Live Charts are a great way to visualize quantitative metrics like capacity or performance metrics. Getting insight into the time line of a parameter monitored helps to better understand the context of an event. If a warning or even a critical threshold of a parameter has been reached, e.g. for your CPE search performance, then this is not necessarily a critical event you immediately need to address. It could be just a one-time peak. The time line shows you this context, so you can see if the trend is your friend or not.

Overview x Heatmap x Content Manager PROD x CMOD PROD x Performance Metrics x Listener Metrics x		+
ObjectstorePerformance @ CPE55 - 1 Hour(s)	DatabasePerformance @ FNBASEDB - 1 Hour(s)	■ \$ ×
	100 70 40 10 8.35 AM 8.43 AM 8.51 AM 8.59 AM 9.06 AM 9.14 AM 9.22 AM 9.30 AM	
Time + Value Message	Time - Value Message	
13s ago 1,484.00 Time in milliseconds to connect, fetch the instance and count objects (type Document, 1 Timin ago 843.00 Time in milliseconds to connect, fetch the instance and count objects (type Document, 2 Timin ago 657.00 Time in milliseconds to connect, fetch the instance and count objects (type Document, 3 Timin ago 750.00 Time in milliseconds to connect fetch the instance and count objects (type Document, 750.00 Time in milliseconds to connect fetch the instance and count objects (type Document, 750.00 Time in milliseconds to connect fetch the instance and count objects (type Document,	14s ago 62.00 Database request took 62 milliseconds. Smin ago 16.00 Database request took 16 milliseconds. Smin ago 31.00 Database request took 16 milliseconds. Smin ago 46.00 Database request took 46 milliseconds.	^ •
CPE Performance - 1 Hour(s)	System Performance - 1 Hour(s)	≡¢×
3000 1 2000	30 20 10 0 835 AM 843 AM 851 AM 859 AM 908 AM 914 AM 922 AM 929 AM	
Time - Value Message Situation	Time Value Message Situation	
✓ 13s ago 1,484.00 Time in milliseconds to connect, fetch the ObjectstorePerformance @ CPE55 ^	 7s ago 18.00 CPU: 18.0% Cpu @ ESMServerAgent 	^
14s ago 62.00 Database request took 62 milliseconds. DatabasePerformance @ FNBASEDB	25s ago 2.00 CPU: 2.0% Cpu @ CPE55Agent	
1min ago 843.00 Time in milliseconds to connect, fetch the ObjectstorePerformance @ CPE55	27s ago 6.00 CPU: 6.0% Cpu @ ESMServerAgent	
2min aga 857.00 Time in millicaconde to connect fatch the Objected and and an ODEEE	A7c ano 0.00 CDI I-0.0% Cour @ EQMQoniorAcout	~

You can use single situations in a Live Chart, but also situation groups. This enables you to combine multiple metrics in one chart e.g. to see correlations between different metrics – such as ObjectStore Performance and Database Performance – or see multiple systems in one chart – such as the CPEs in your Production farm. This combination also helps you to identify the root cause of problems quicker and with less efforts.

Situations can also be shown as Bar Chart, so you can visualize capacity metrics like "pages added per hour". Such a Bar Chart – also available as report chart – enables you e.g. to show the growth rates in your repository.

000 -					
000				1	
000 -					3
000					
000					(1 0) 🗸 4
000					
0	[10:27 AM]	[10:42 AM]	[10:57 AM]	[11:12 AM]	
7min ago	5,400.00 Appl: "II	BM FileNet Content Platform Engi	ne" Inst: E:\IBM\FileNet\Conte	entEngine Version: "5.5.0" I	Path: /USER/BASEOS/Document/
22min ago	4,950.00 Appl: "II	BM FileNet Content Platform Engi	ne" Inst: E:\IBM\FileNet\Conte	entEngine Version: "5.5.0" I	Path: /USER/BASEOS/Document/
				ntEngine Version: Pauet 5 5 0 Pauet 1	Dath: // ICED/DACEOC/Deaumant/
37min ago	4,500.00 Appl: "II	BM FileNet Content Platform Engi	ne", inst. E.\IBM\FileNet(Conte	mengine version. aquot, 5.5.0 aquot, 1	all. /OSER/BASEOS/Document/

Contact Information

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