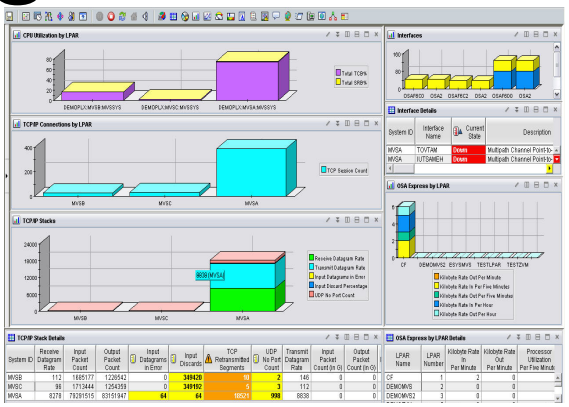
Leveraging Tivoli Enterprise Portal

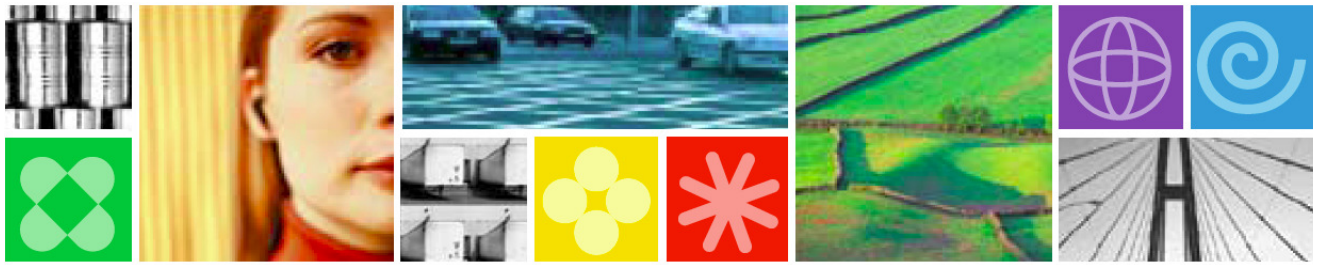


Ed Woods

IBM Consulting I/T Specialist

Tivoli on System z

woodse@us.ibm.com



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Sometimes It's What You Don't See...

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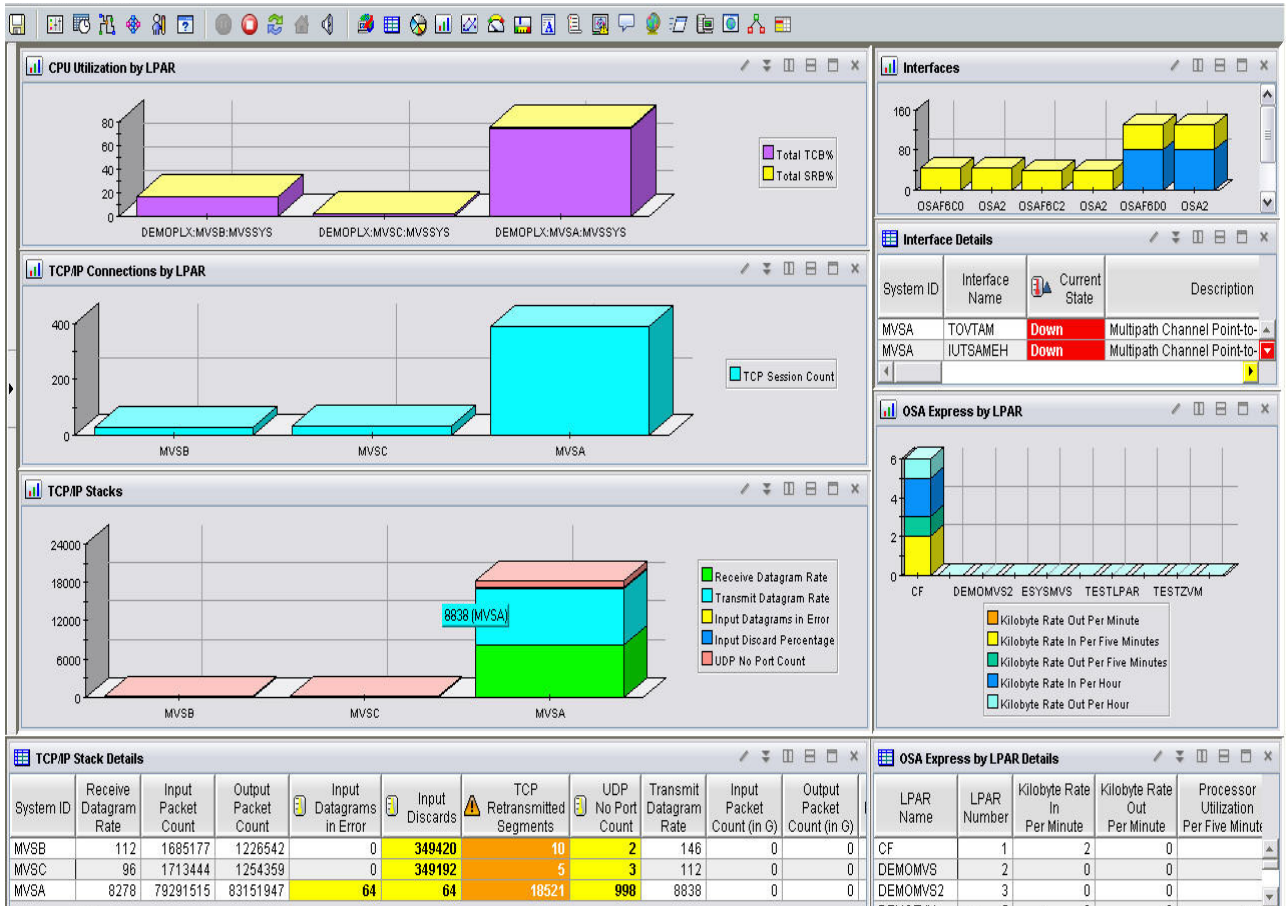
Abstract: Leveraging the TEP

Once you have installed the Tivoli Enterprise Portal (TEP), there are some simple changes you can make to dramatically enhance OMEGAMON and ITM's effectiveness.

This is an illustration of how simple it is to customize the TEP.



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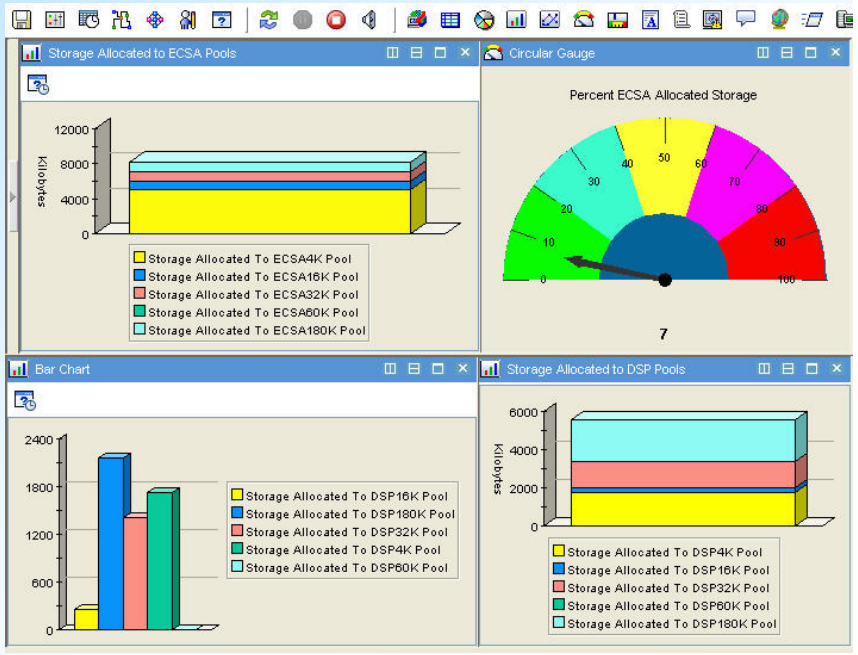
What is the TEP?

Tivoli Enterprise Portal (TEP)

Common user interface

- Manage z/OS and distributed resources from a single browser interface.
- Displays data in graphs, charts and table formats
- View real time and historical data, at the same time

- Easy to configure, right from the TEP
- Out of the box Best Practices
  - Workspaces, Situations, and Expert Advice



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Integrated with the TEP

- z/OS Health check
- z/OS & USS
- NetView for z/OS
- Network
- DB2
- CICS
- IMS
- Storage
- WebSphere MQ
- WebSphere Appl Server
- z/VM & Linux on z
- Distributed Monitoring
- Automation
- DFSMS Audit
- Catalog Management
- SMF trend analysis Reports

z/OS Management Console (included with z/OS)

OMEGAMON XE on z/OS

IBM Tivoli NetView for z/OS V5.3

OMEGAMON XE for Mainframe Networks

OMEGAMON XE for DB2 PE/PM

OMEGAMON XE for CICS

OMEGAMON XE for IMS

OMEGAMON XE for Storage

OMEGAMON XE for Messaging

ITCAM for WAS

OMEGAMON XE on z/VM and Linux

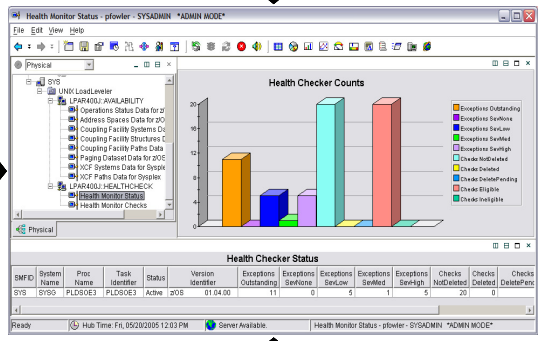
IBM Tivoli Monitoring (ITM) & ITCAM

SA for z/OS

Advanced Audit for DFSMShsm

Advanced Catalog Management for z/OS

Tivoli Decision Support for z/OS



TEP

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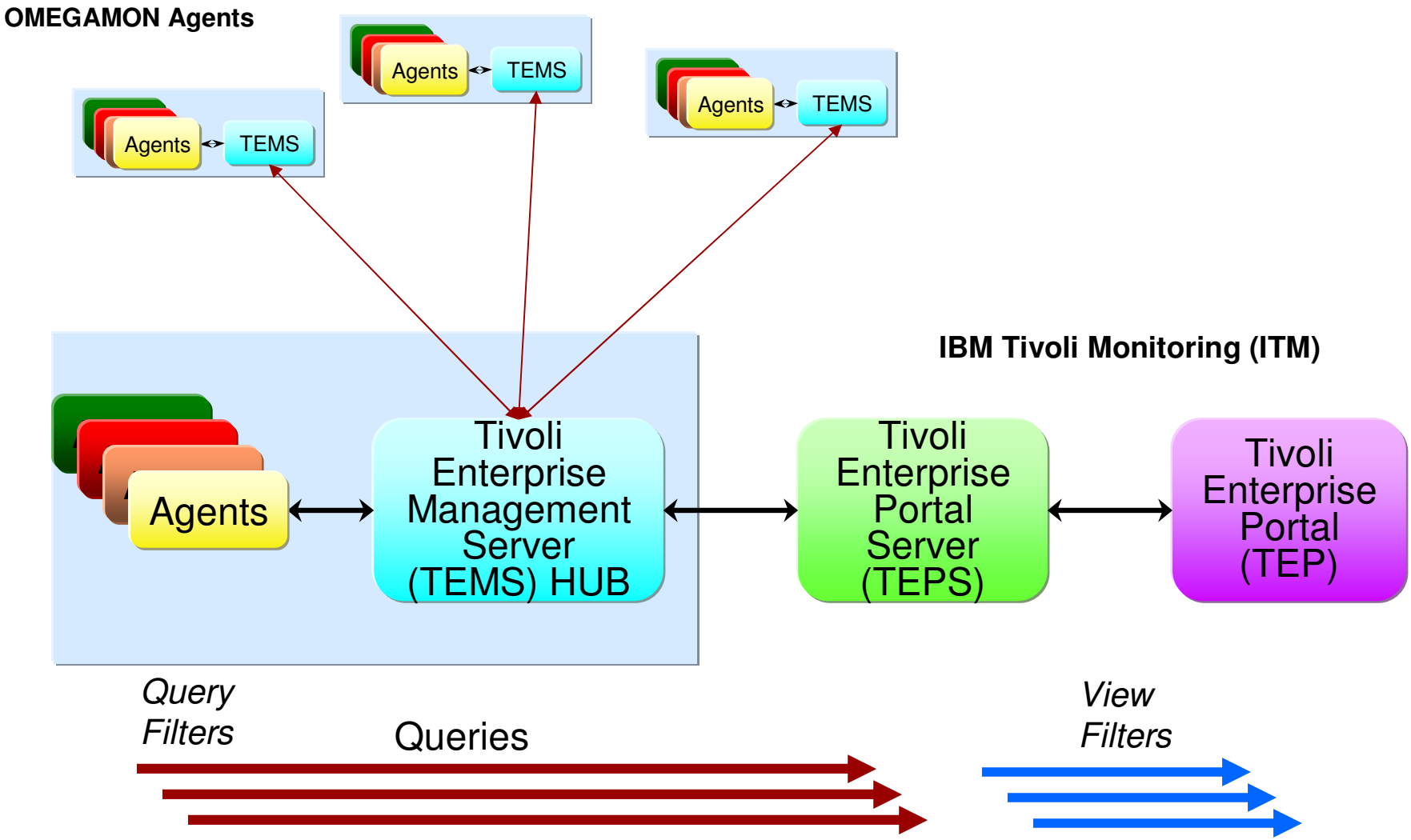
OMEGAMON XE TEP Infrastructure



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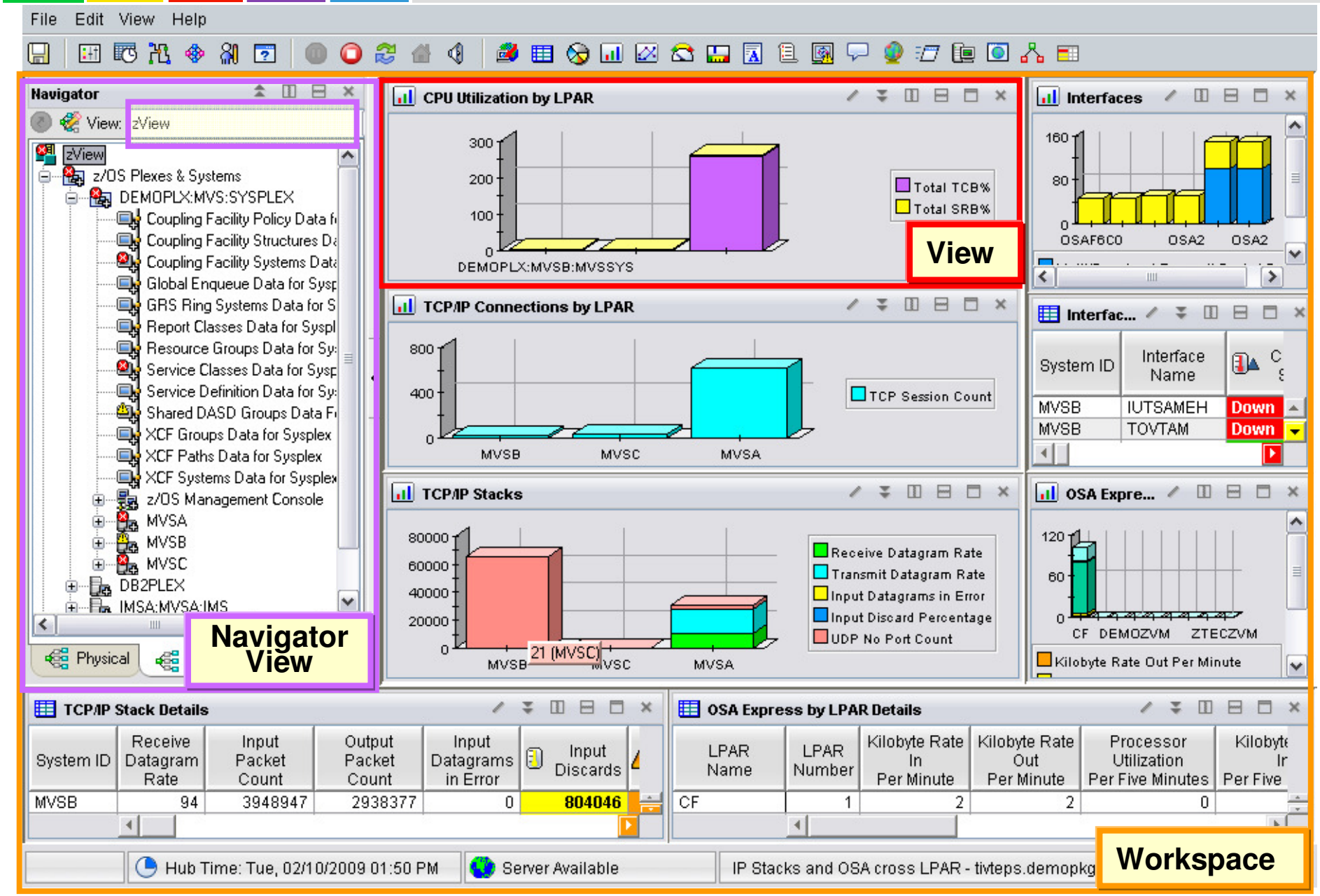
TEP - Terminology



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TEP top 10 TIPs	Benefit
Cross LPAR Views	**View all LPARs in one View**
Creating a New Navigator View	**Organize workspaces by user and problem**
Cross Application Workspaces	**Integrate many views into one**
Eliminate Multiple pages	**Compact simplified views**
Filter Queries	**Faster Views**
Customizing Tables and Charts	**Highlight only what you need to see**
Situations	**Alert only on problems that need action**
Topology	**Verify Installation fix levels and connectivity**
Built-in Tutorials	**TEP Online Education**
Tuning and ITMSUPER	**Tune OMEGAMON Infrastructure**

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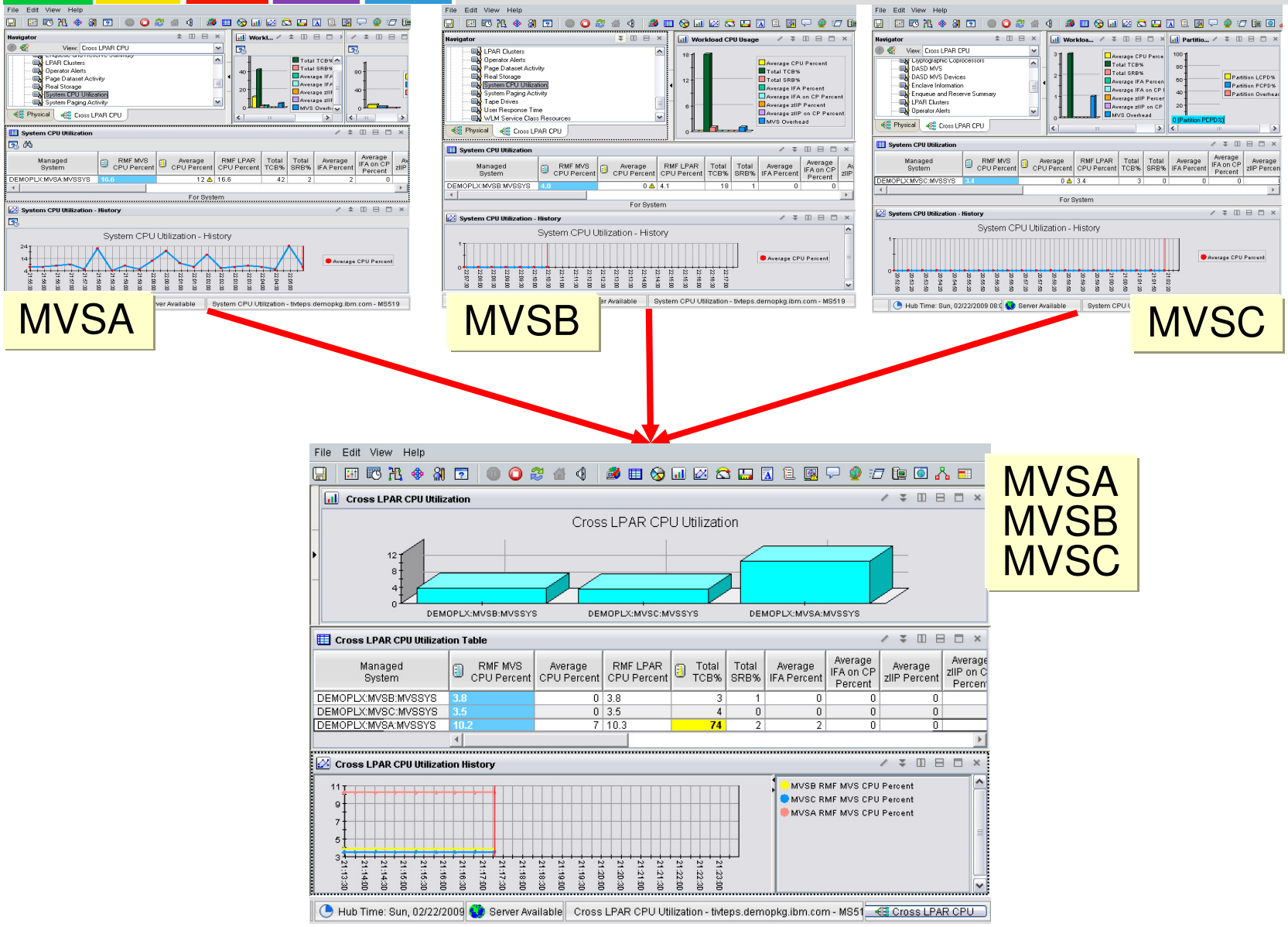
Cross LPAR View - Overview



Example: OMEGAMON XE on z/OS
Default Physical drill down to see one LPAR at a time

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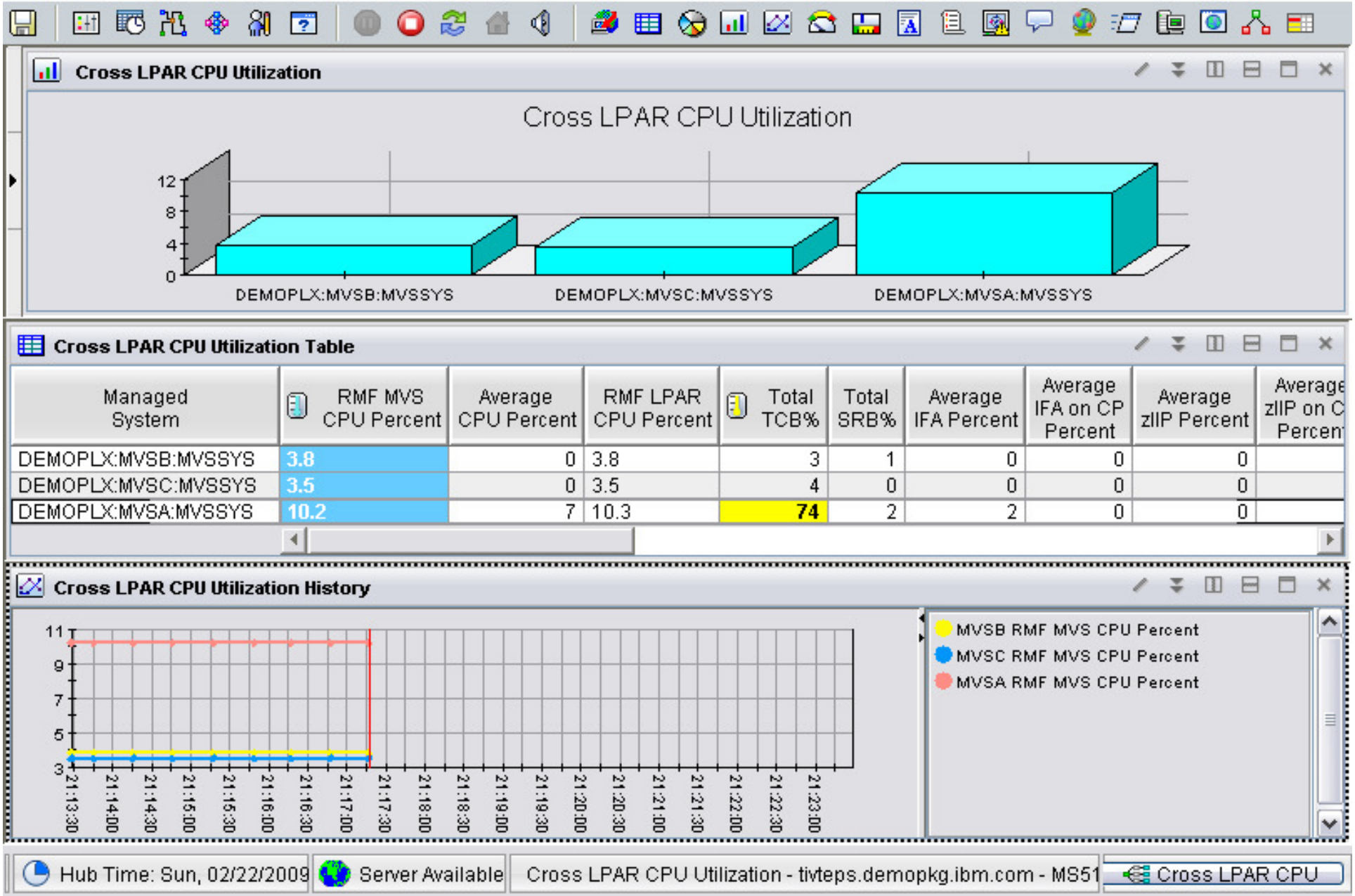
Cross LPAR View – Example



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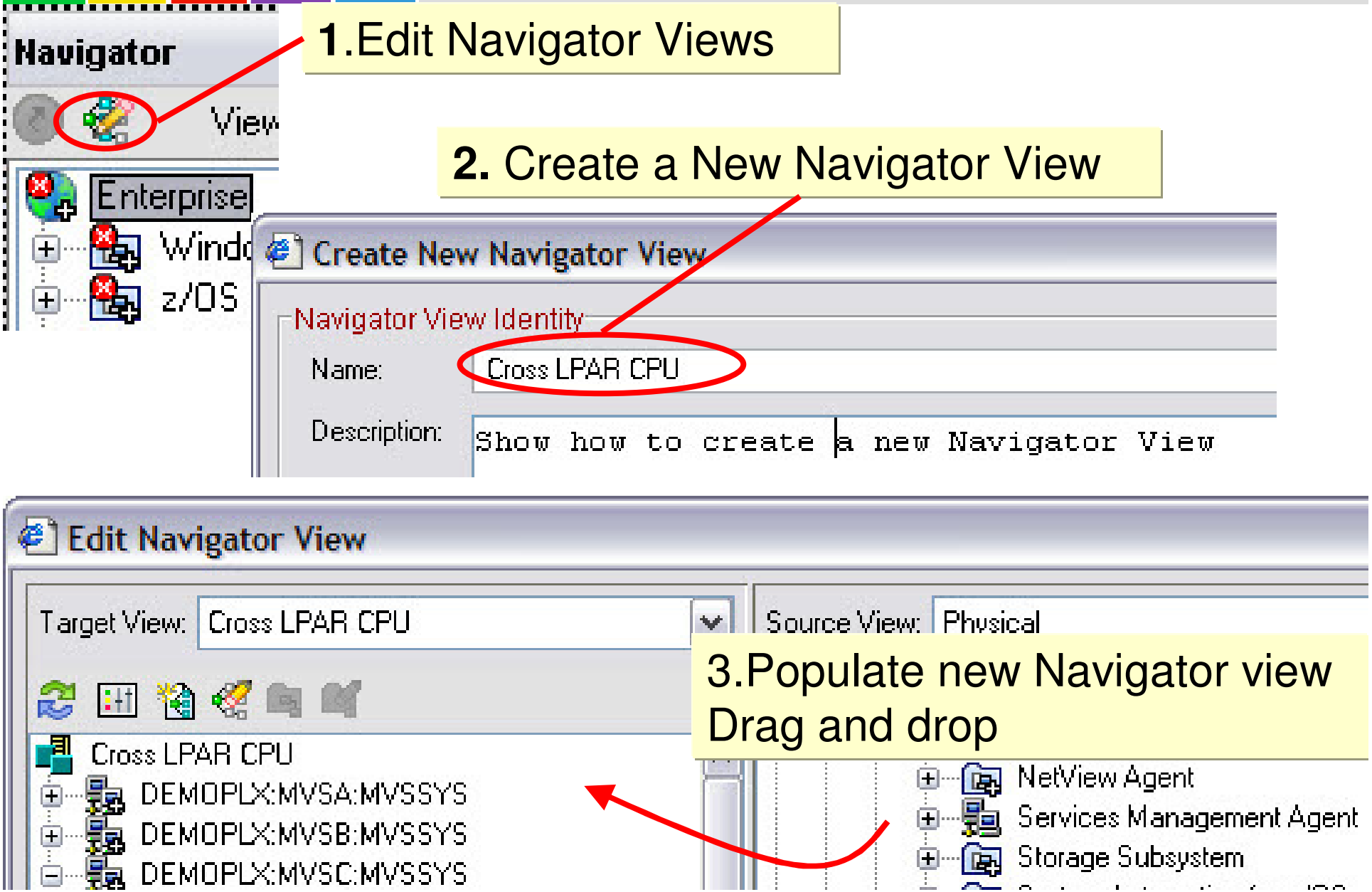
New Navigator View



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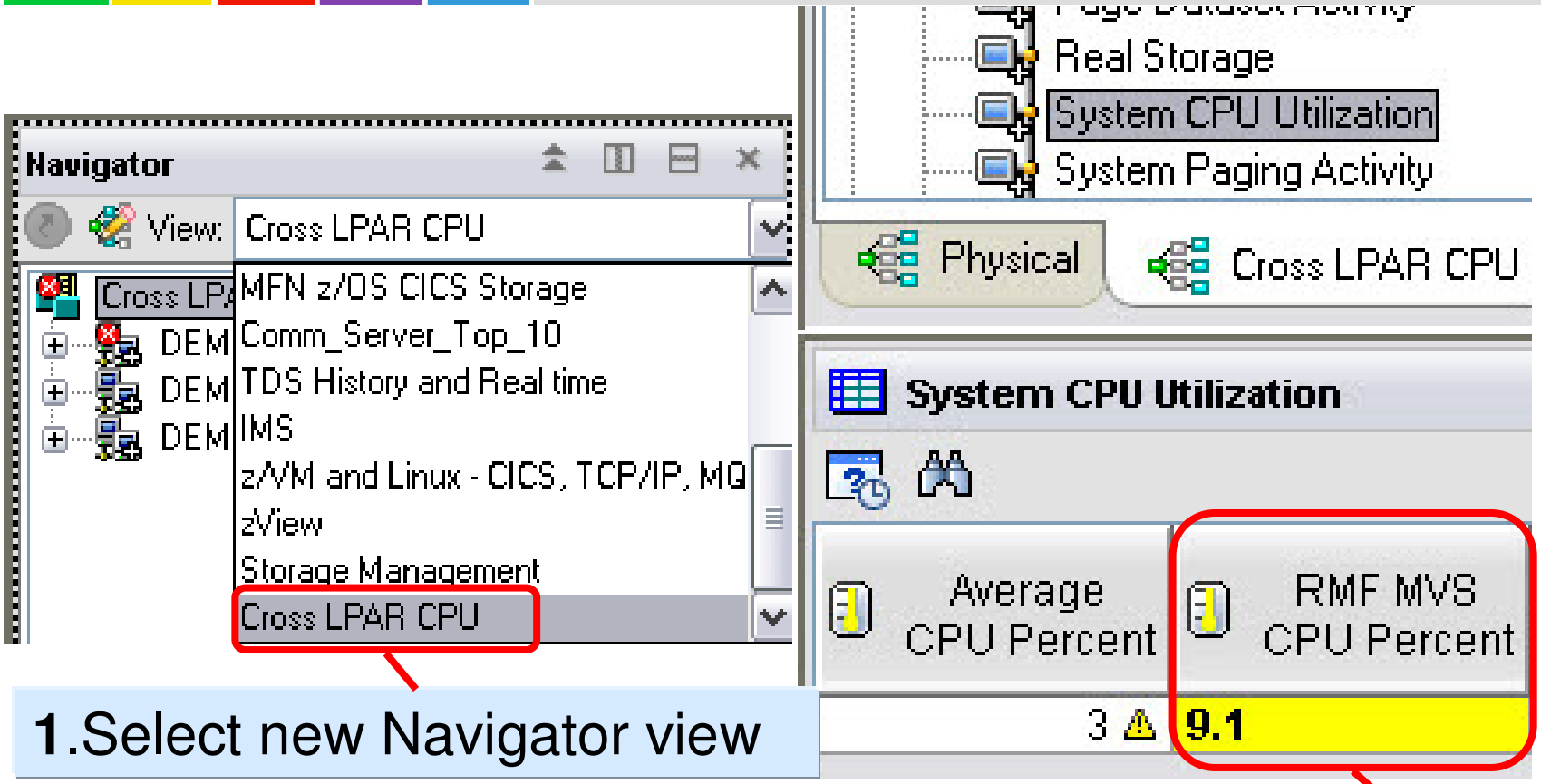
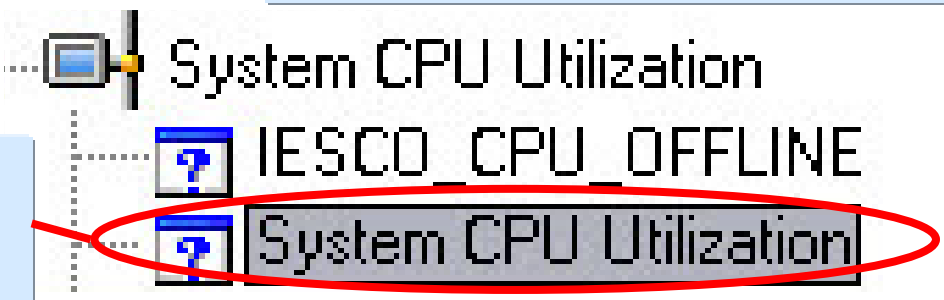
Choose attributes to graph



1.Select new Navigator view

2.Attribute to be graphed



3.Remember Query of Attribute to be graphed

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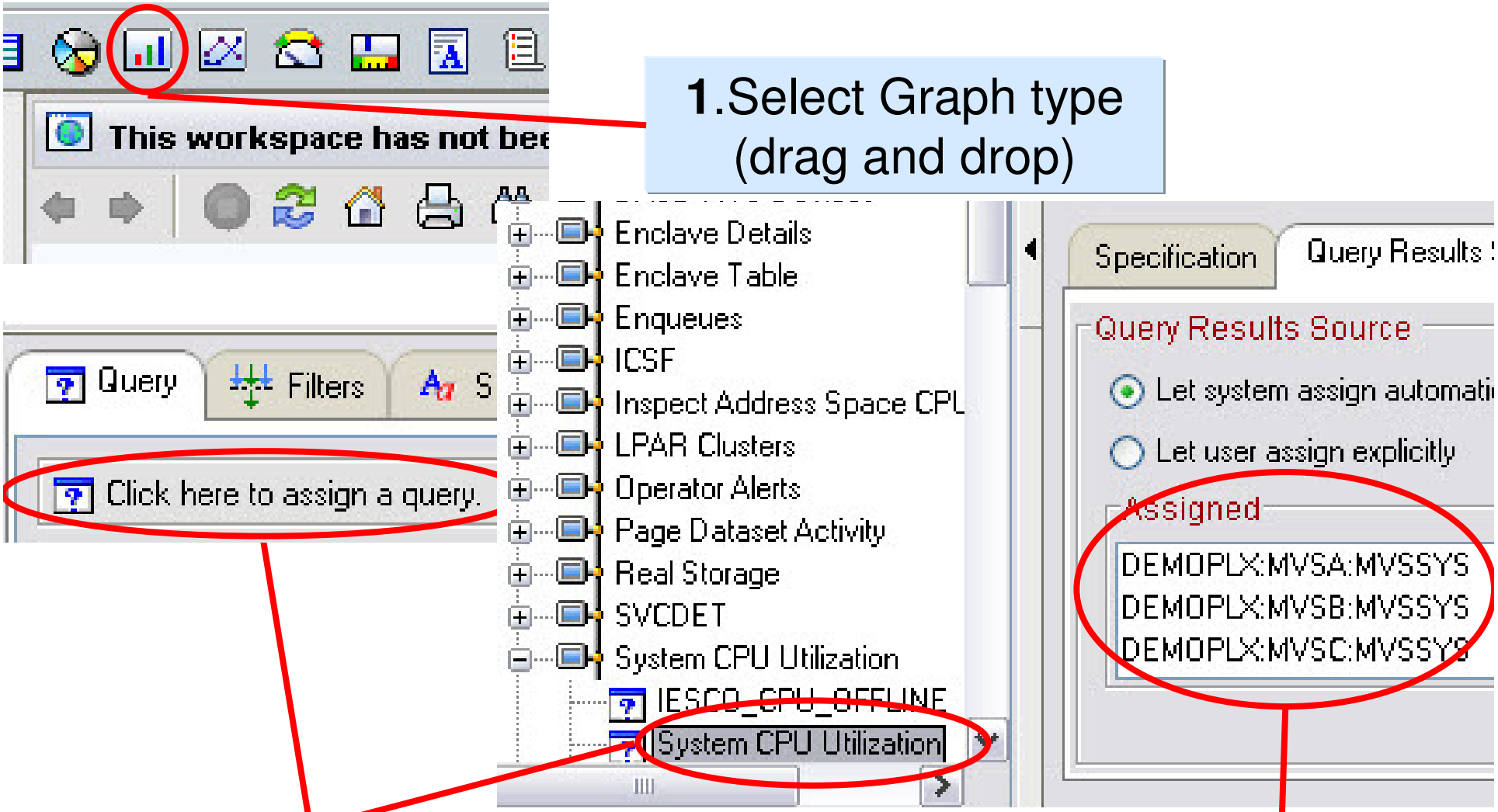
Select type of graph



1.Select Graph type (drag and drop)

2.Assign Query

3.Assign Systems (default)

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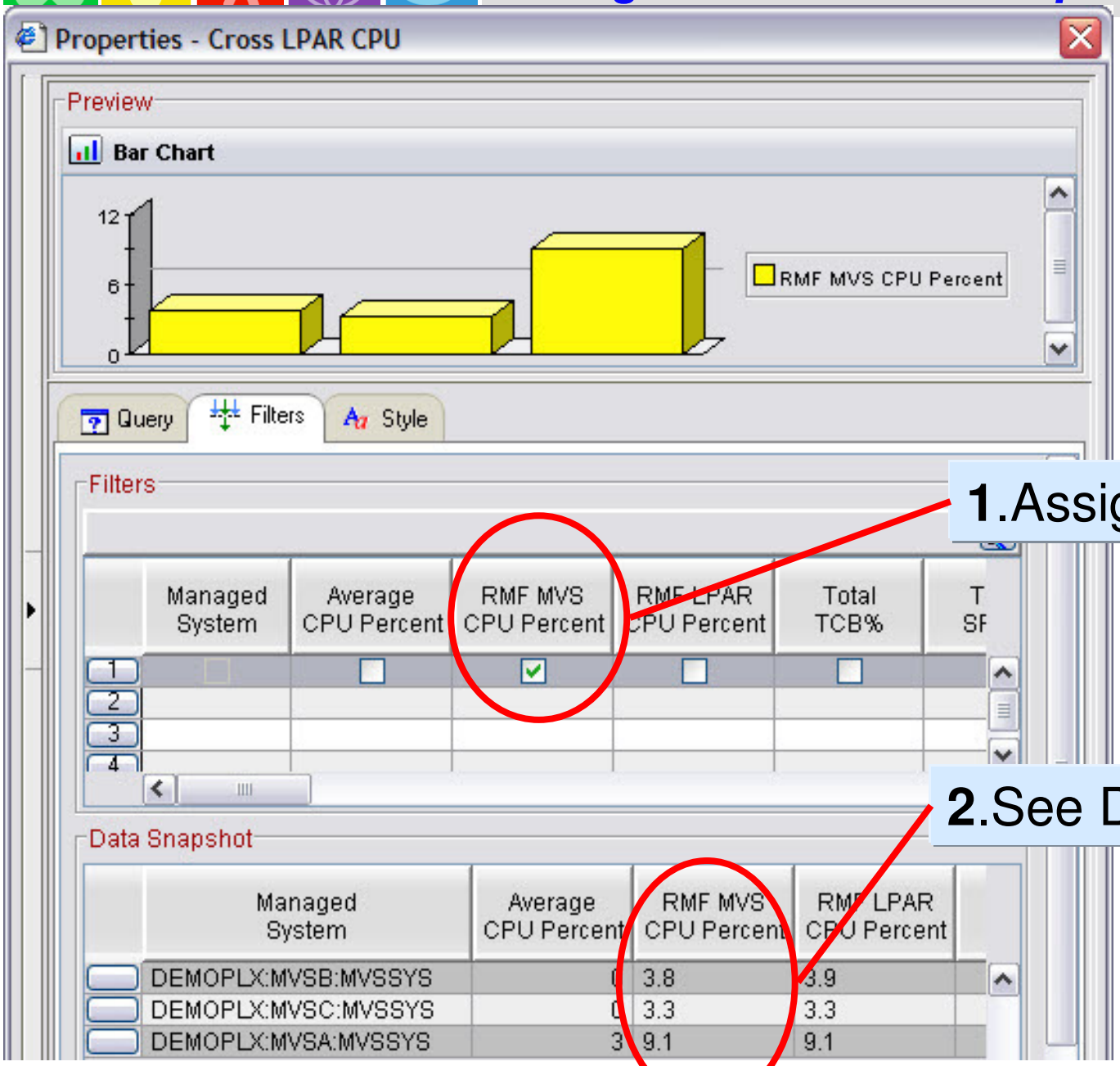
Assign Attribute to Graph



1.Assign What to Graph

2.See Data to be Graphed

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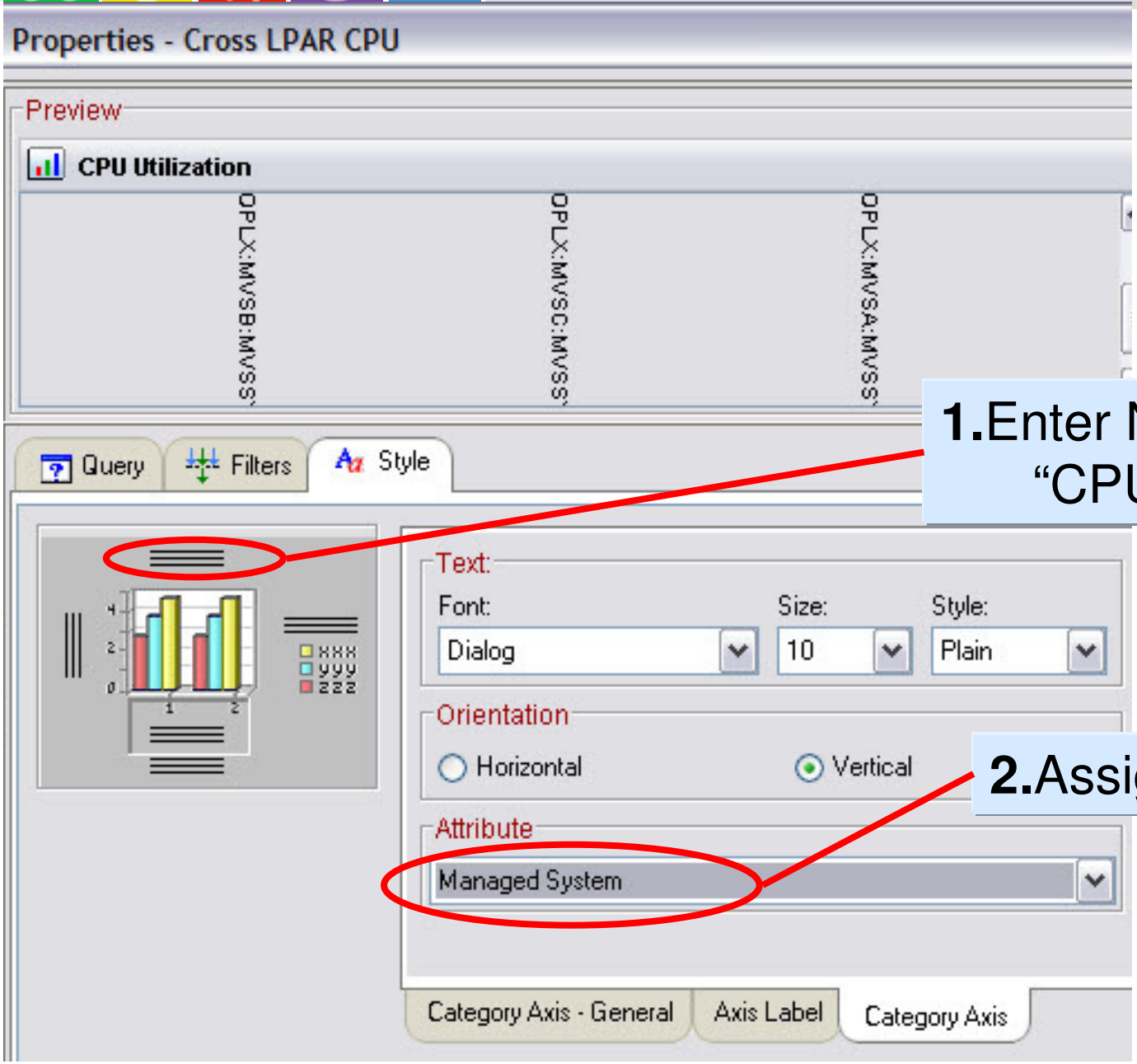
Customize Graph



1.Enter Name of window "CPU Utilization"

2.Assign axis to display

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Add Views and Save Workspace

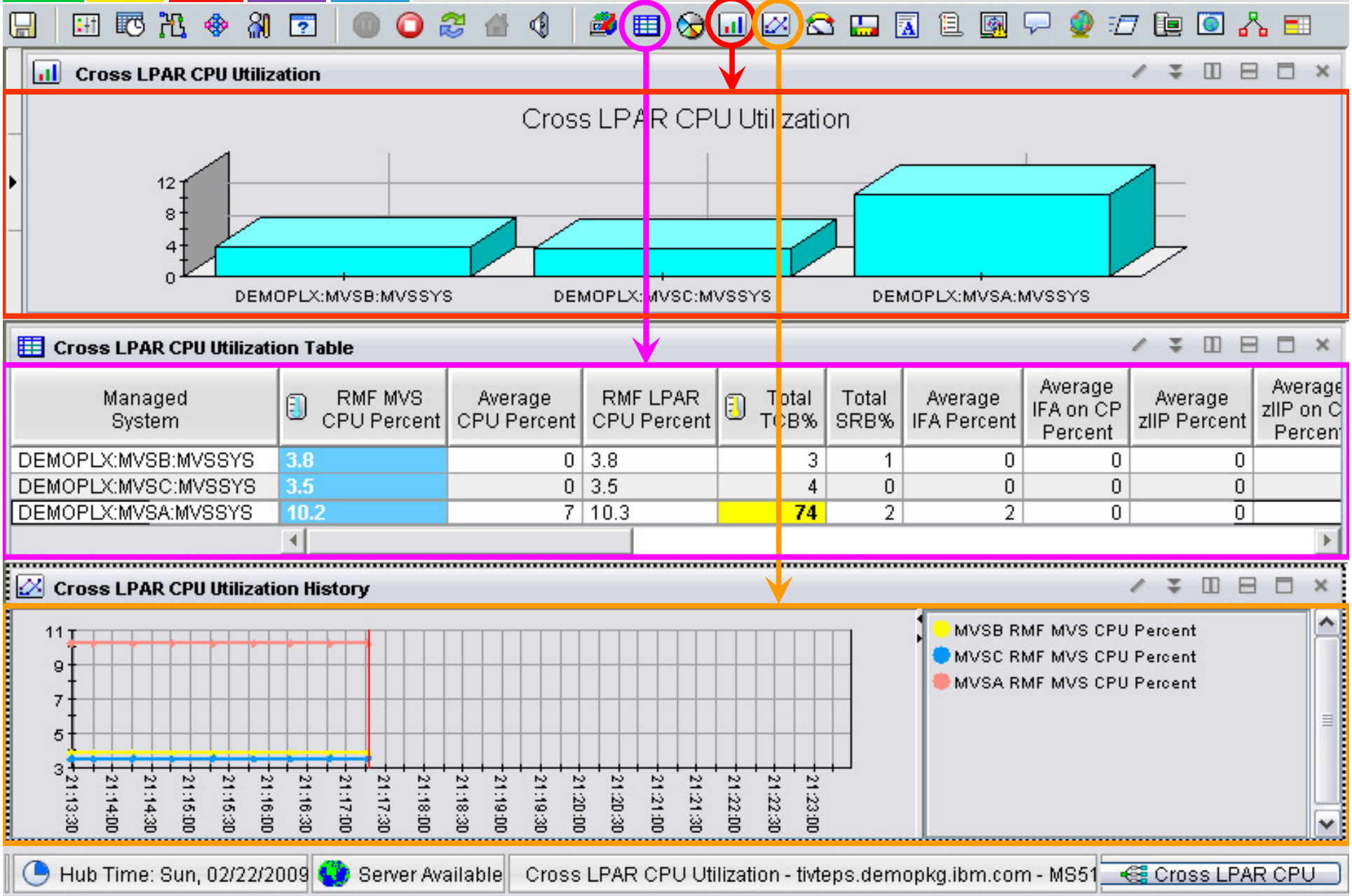

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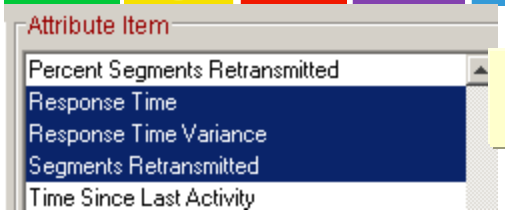
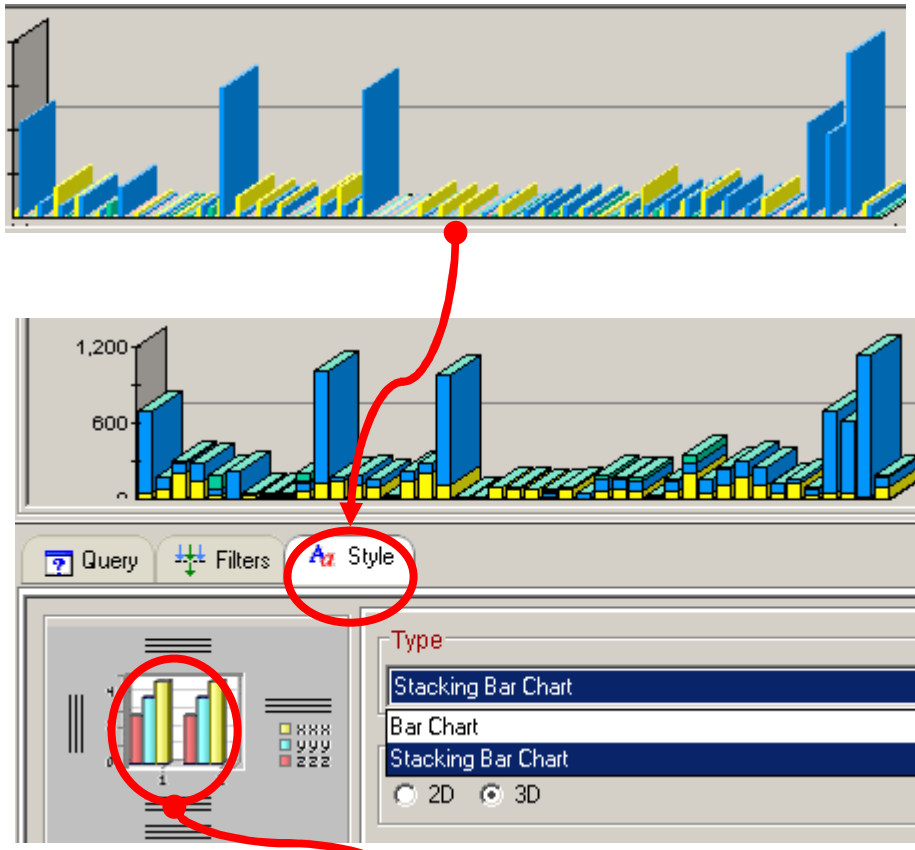
Chart Customization

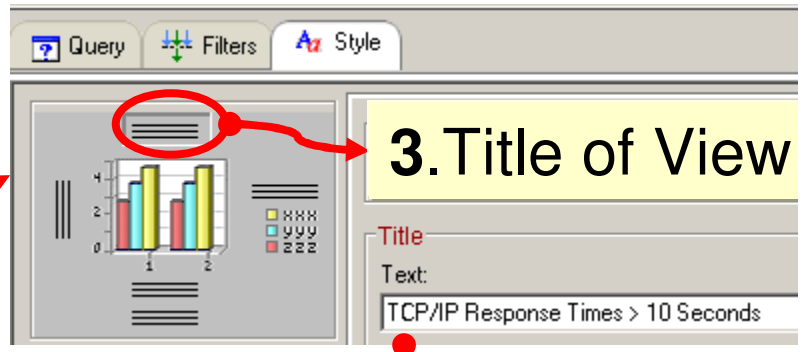


1.Select attributes

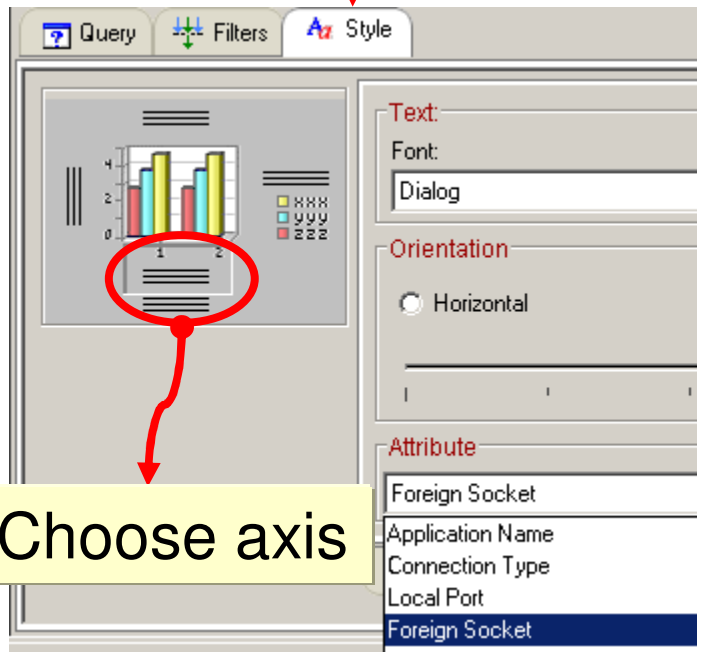
Change bar chart into a stacked bar chart



2.Stacked 3D bar chart



3.Title of View



4.Choose axis

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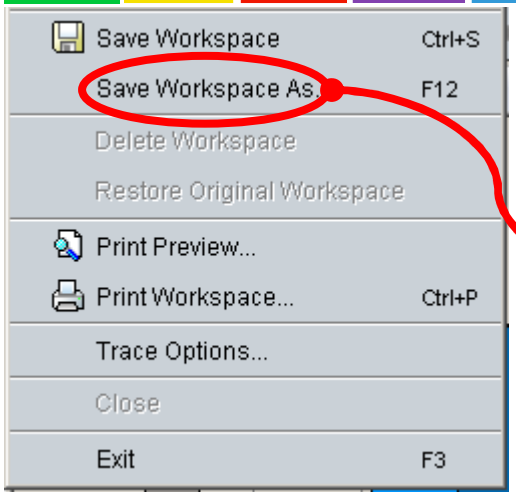
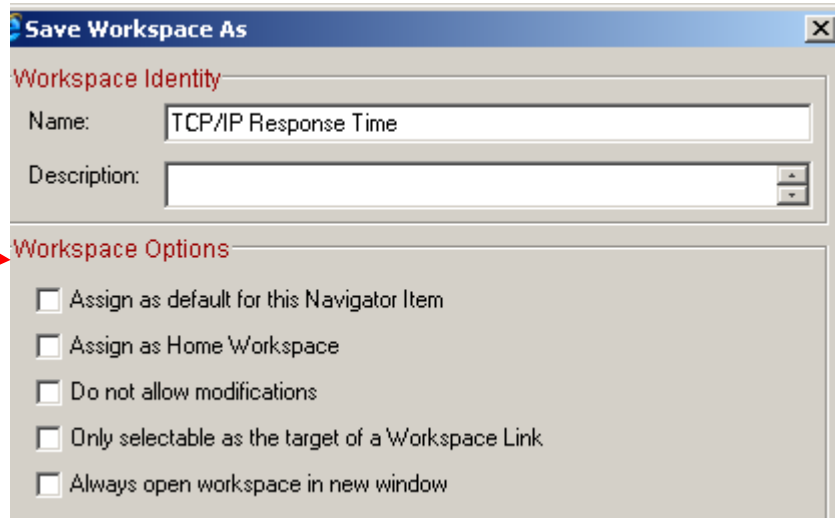
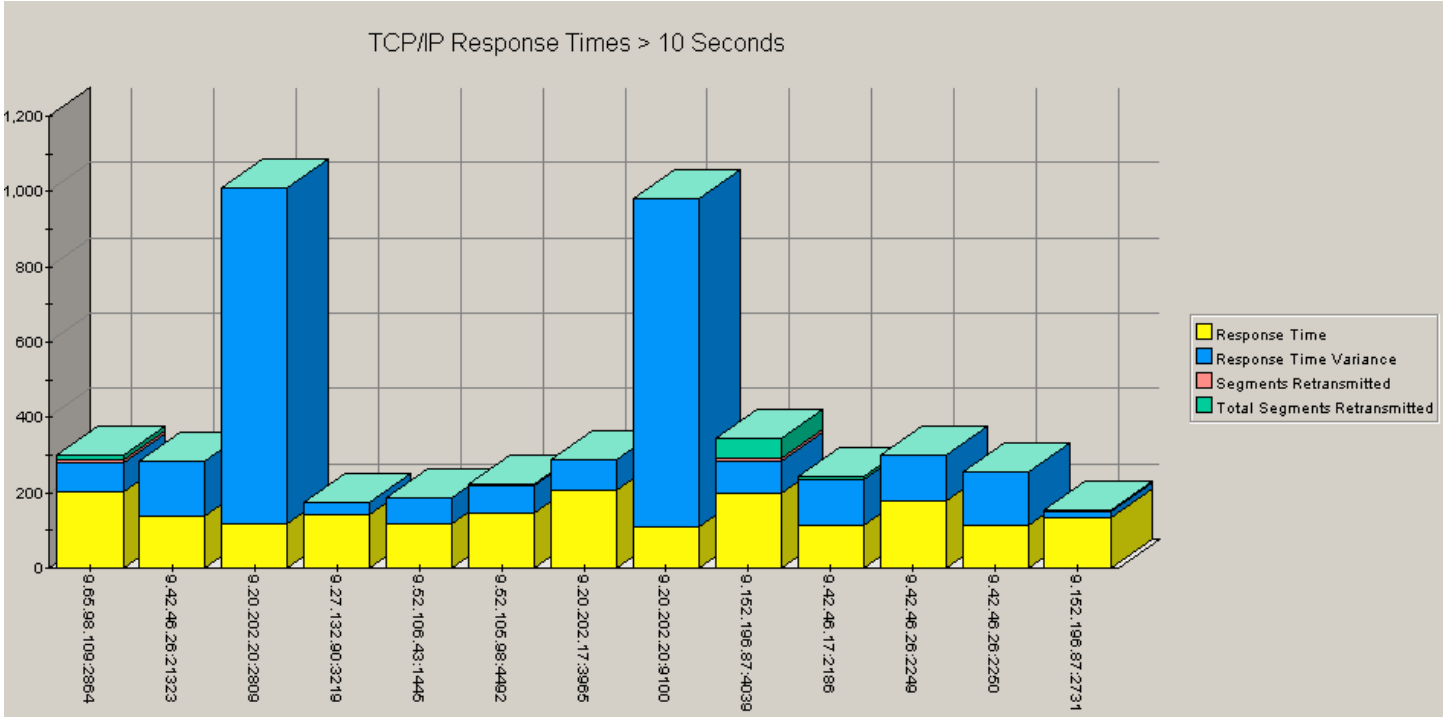
Save Workspace







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Common Portal Customization Scenarios

- The customized Subject Mater Expert (SME) view
- The integrated performance view
- The SME technical graphic overview
- The SME application specific view
- The end to end business application view
- The integrated alert management overview
- Management by exception view

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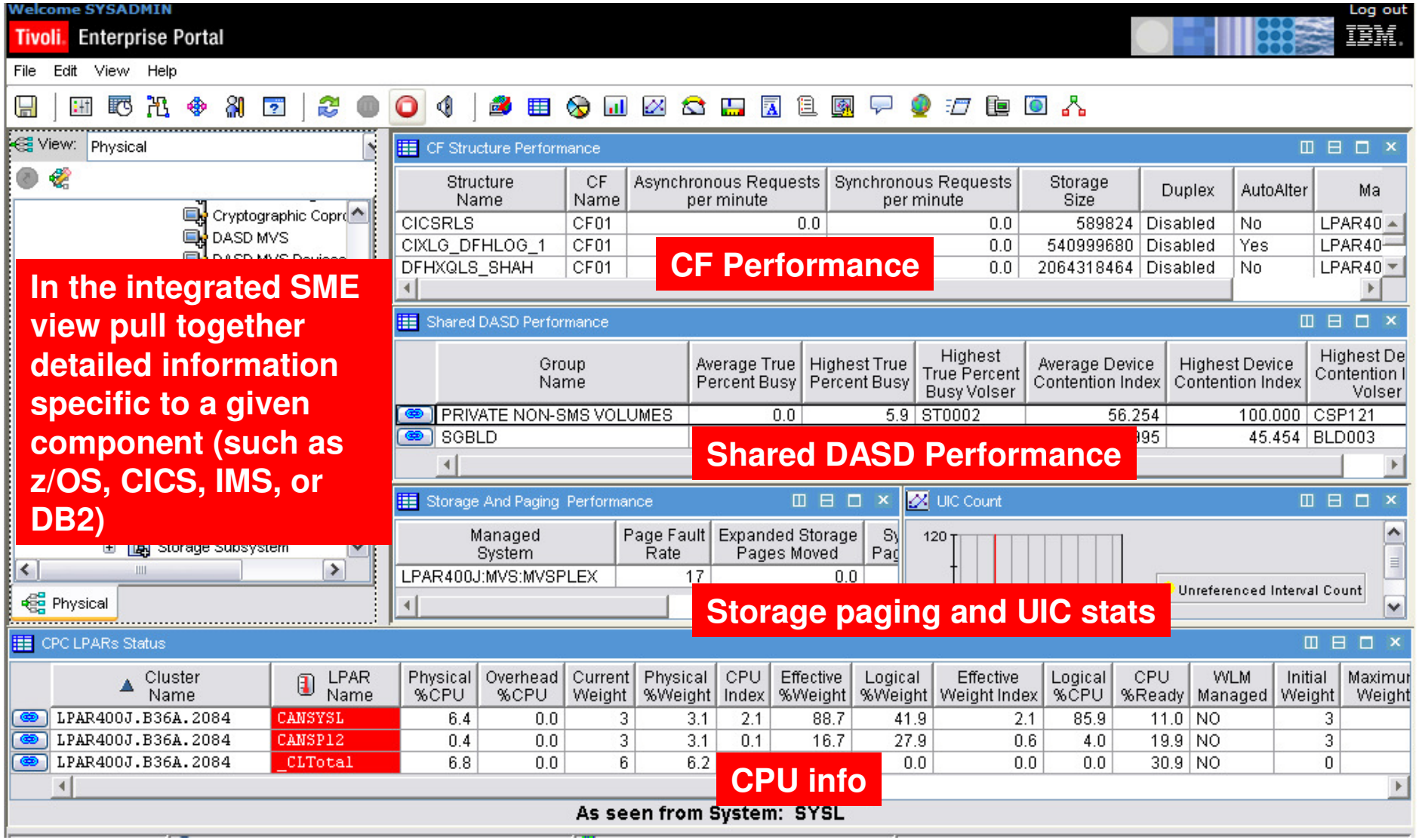
Example Customization Scenarios
Integrated Subject Matter Expert (SME) View



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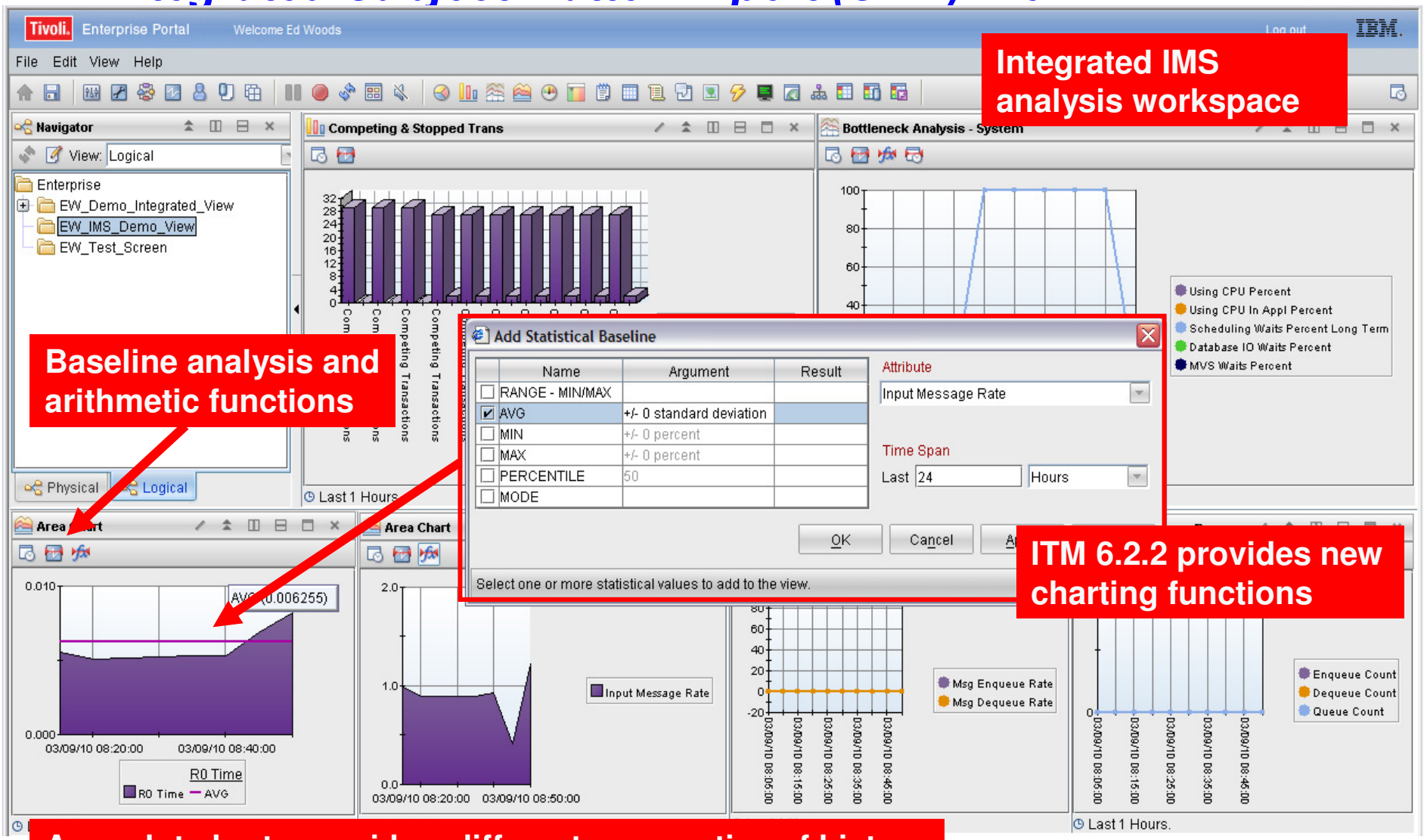
Another Example – Integrated Subject Matter Expert (SME) View



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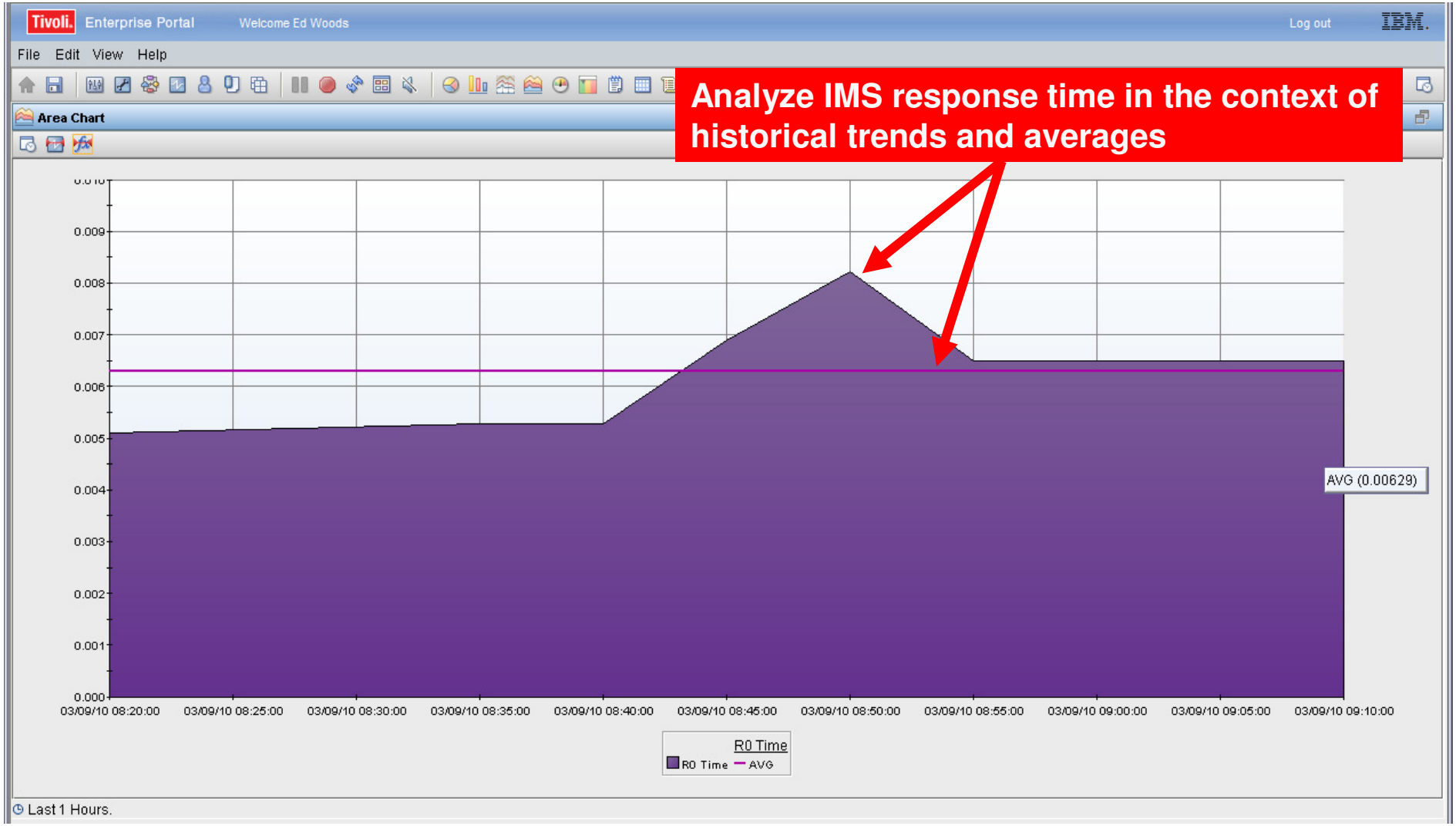
Example – Area Plot Chart Of IMS R0 Response Time With Statistical Baseline



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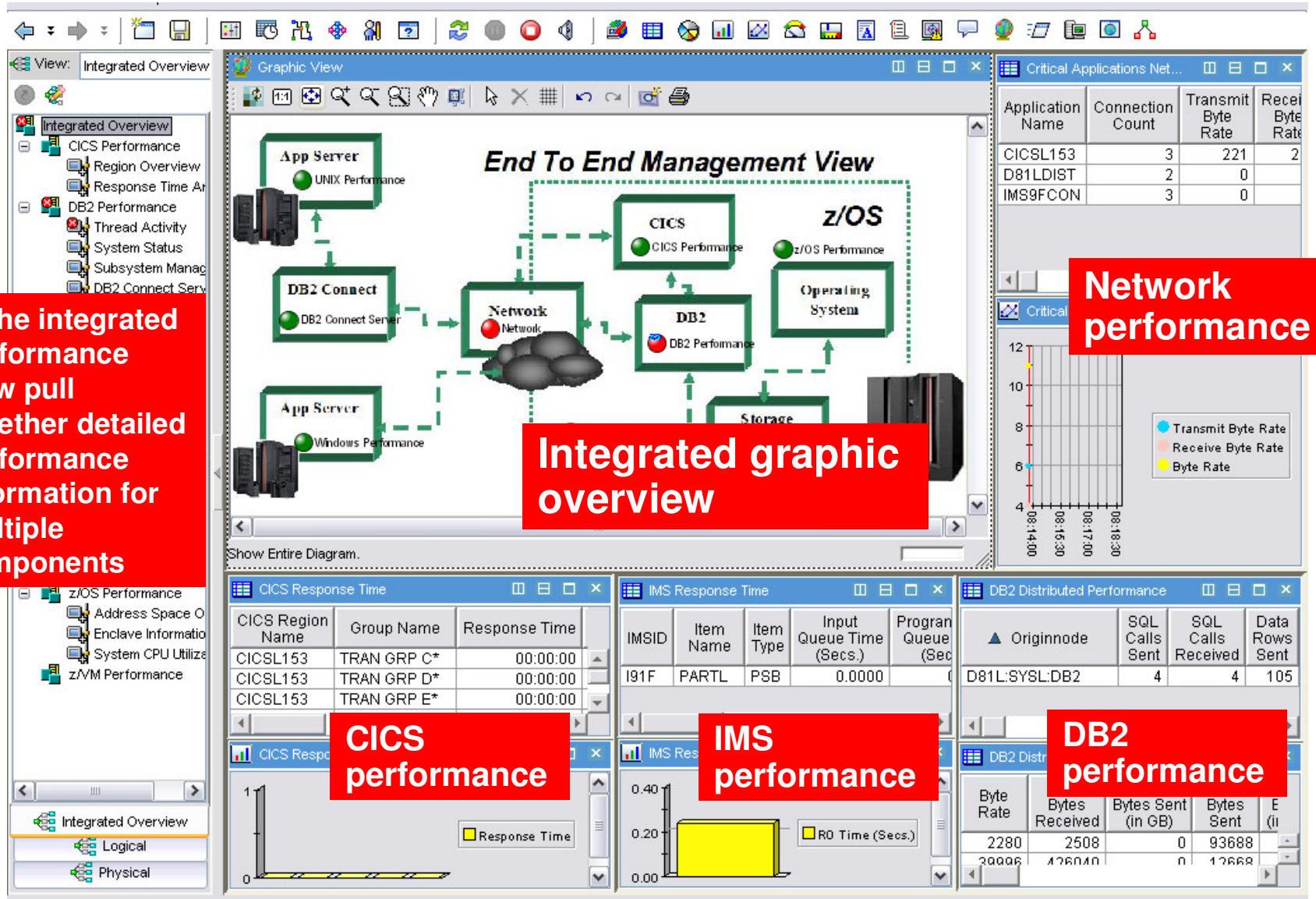
Example – The Integrated Performance View



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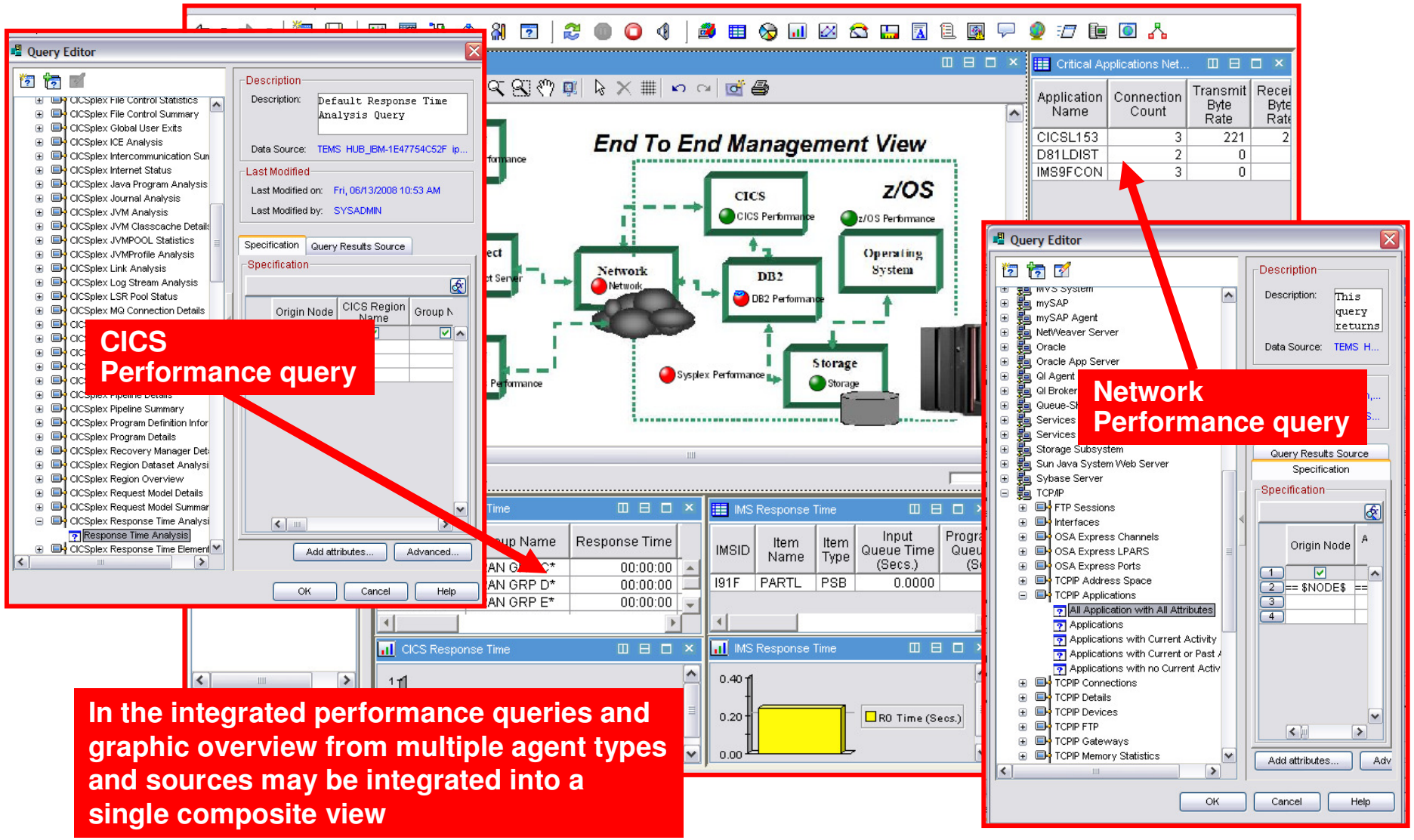
Queries And Customization To Create The Integrated Performance View



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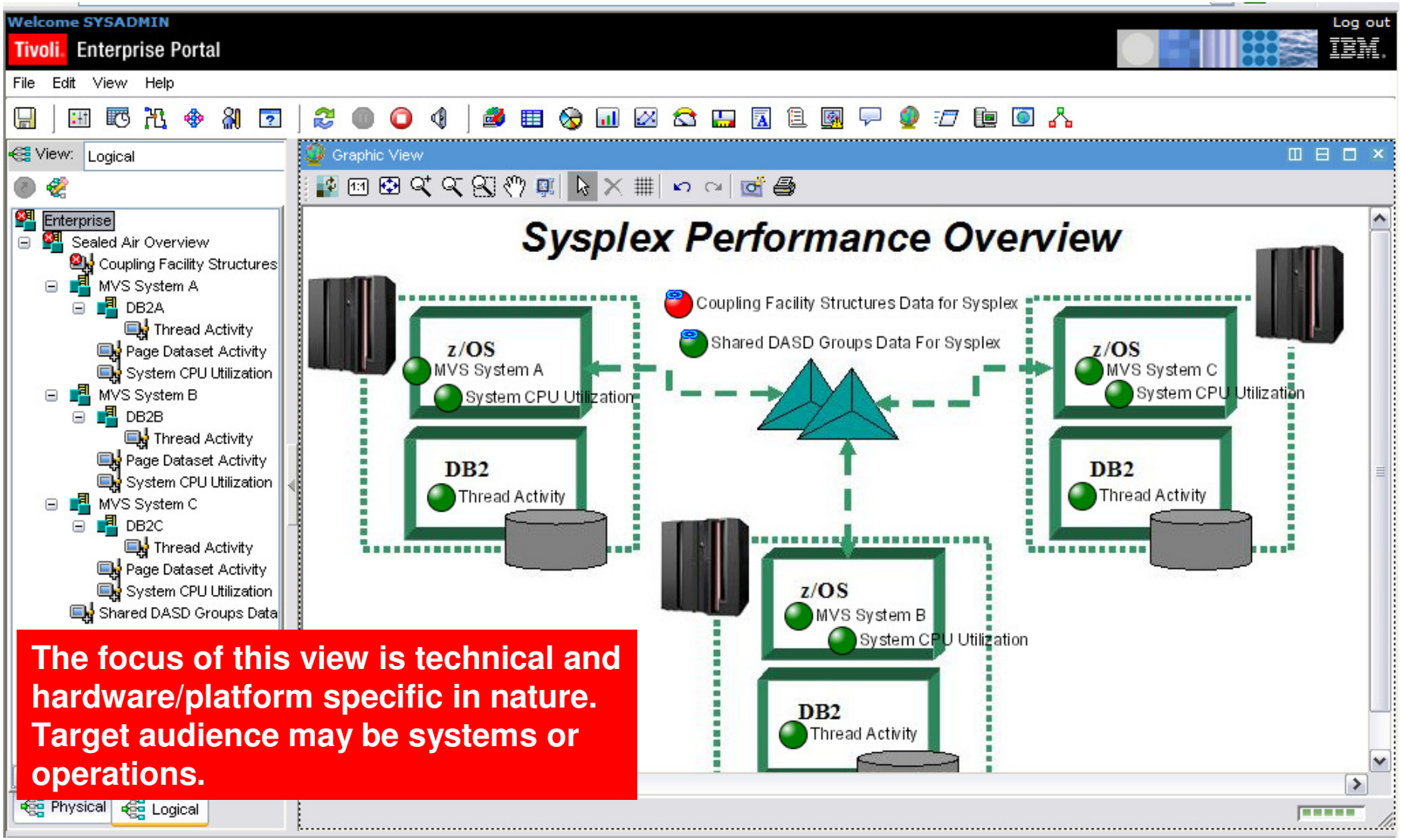
The SME Technical Graphic Overview



The focus of this view is technical and hardware/platform specific in nature. Target audience may be systems or operations.

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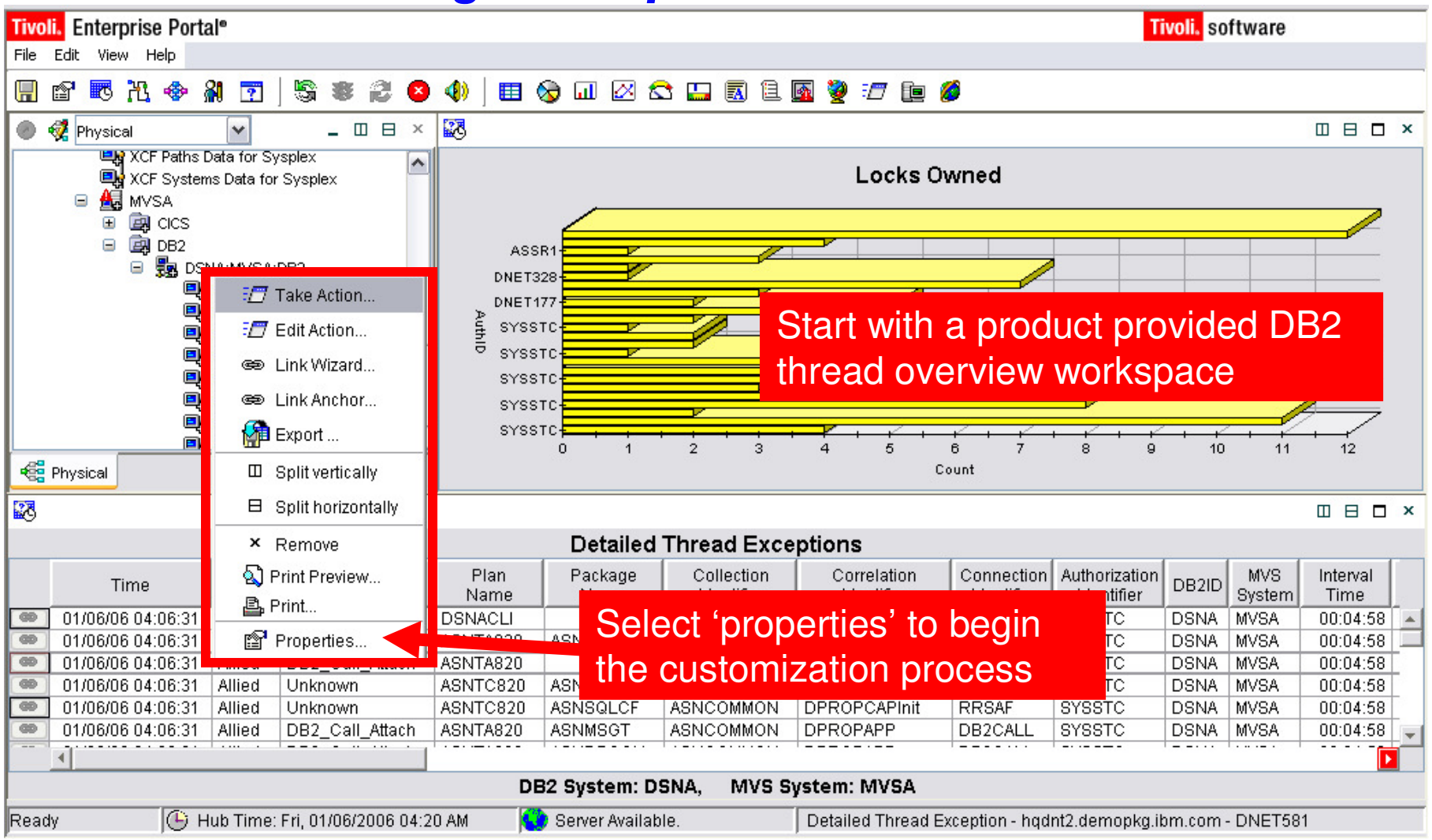
The SME Application Specific View
A DB2 Monitoring Example



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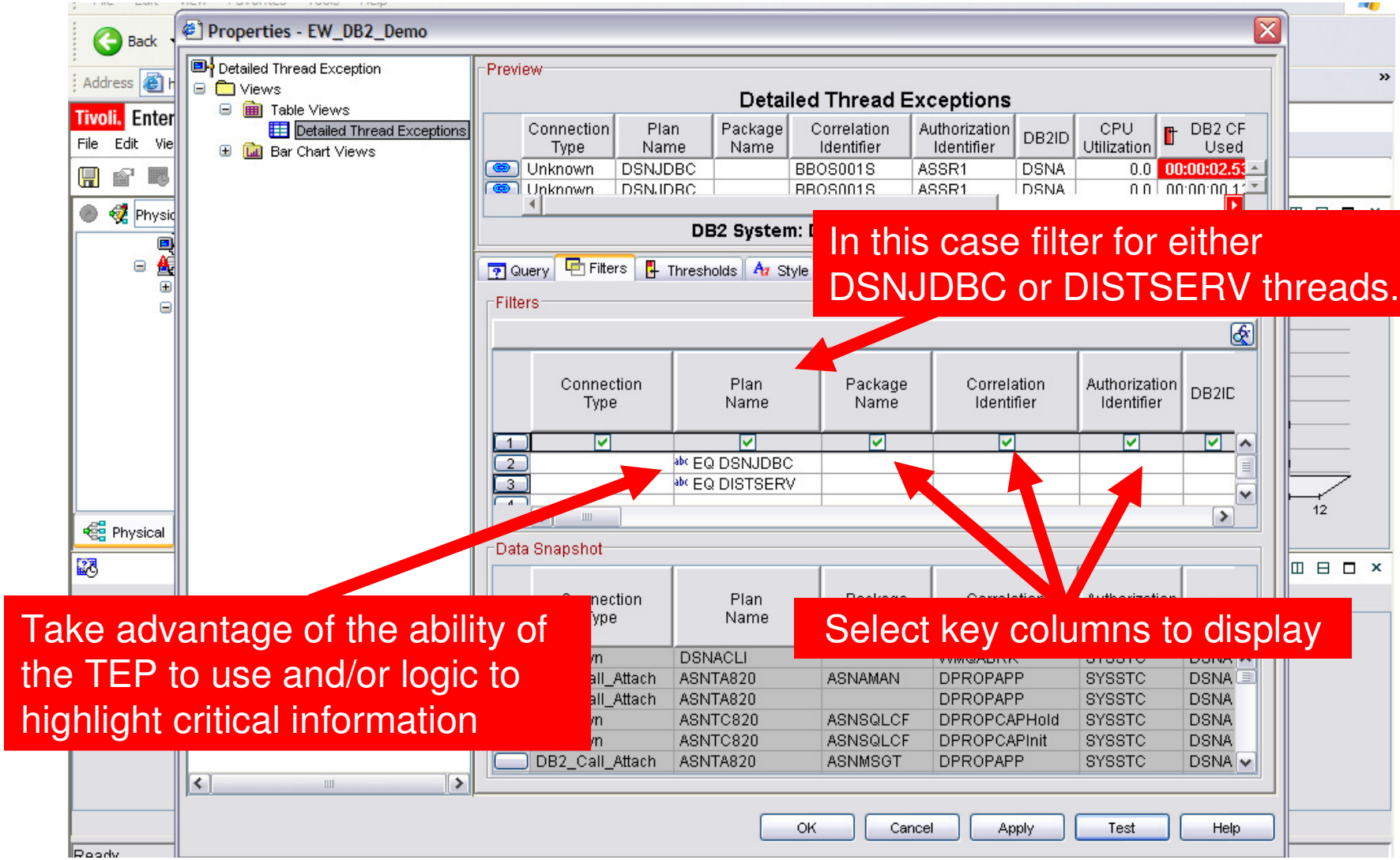
Filter The Contents Of The Workspace



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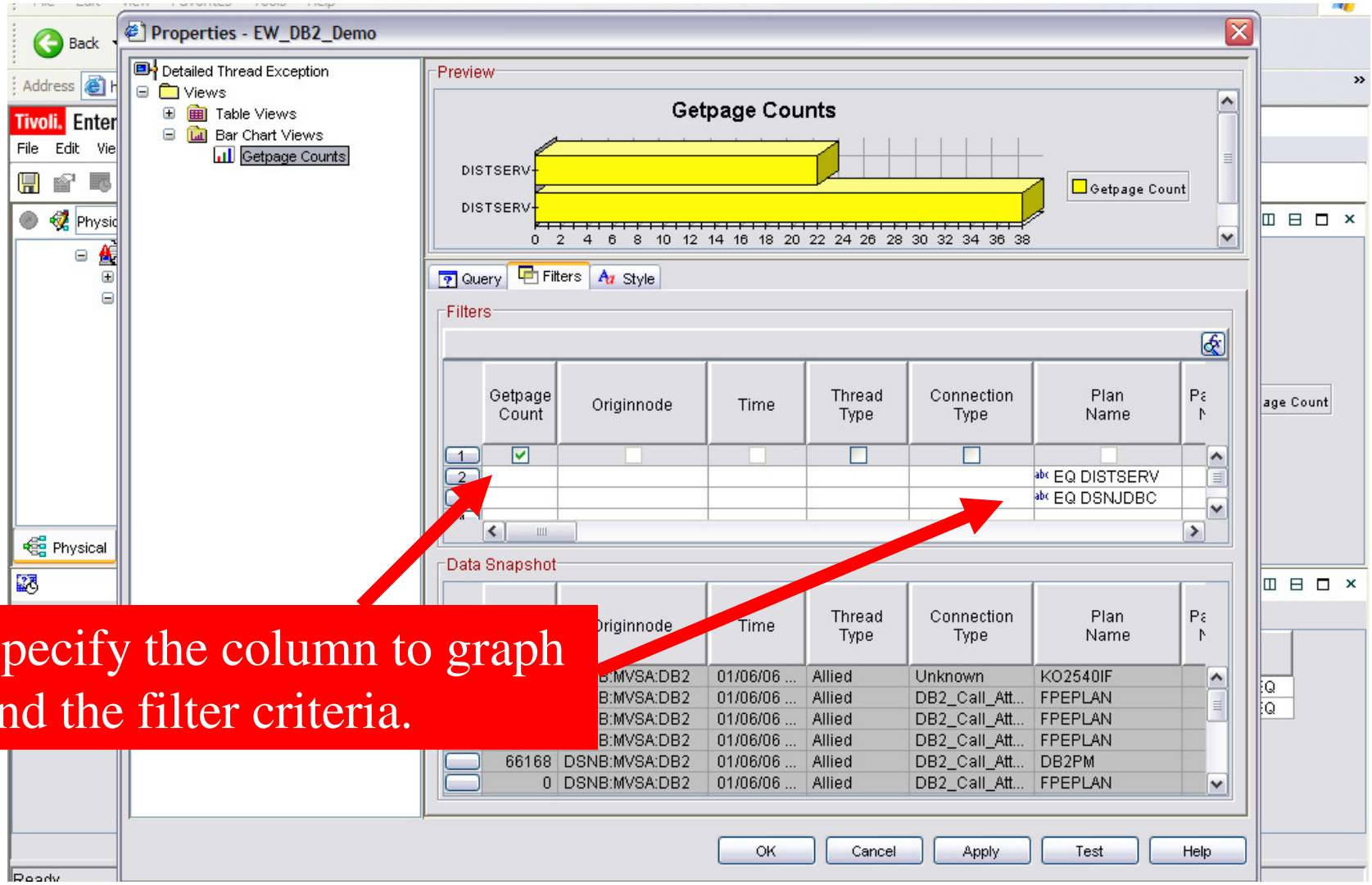
Specify Column To Graph And Add Filters To The Graphic



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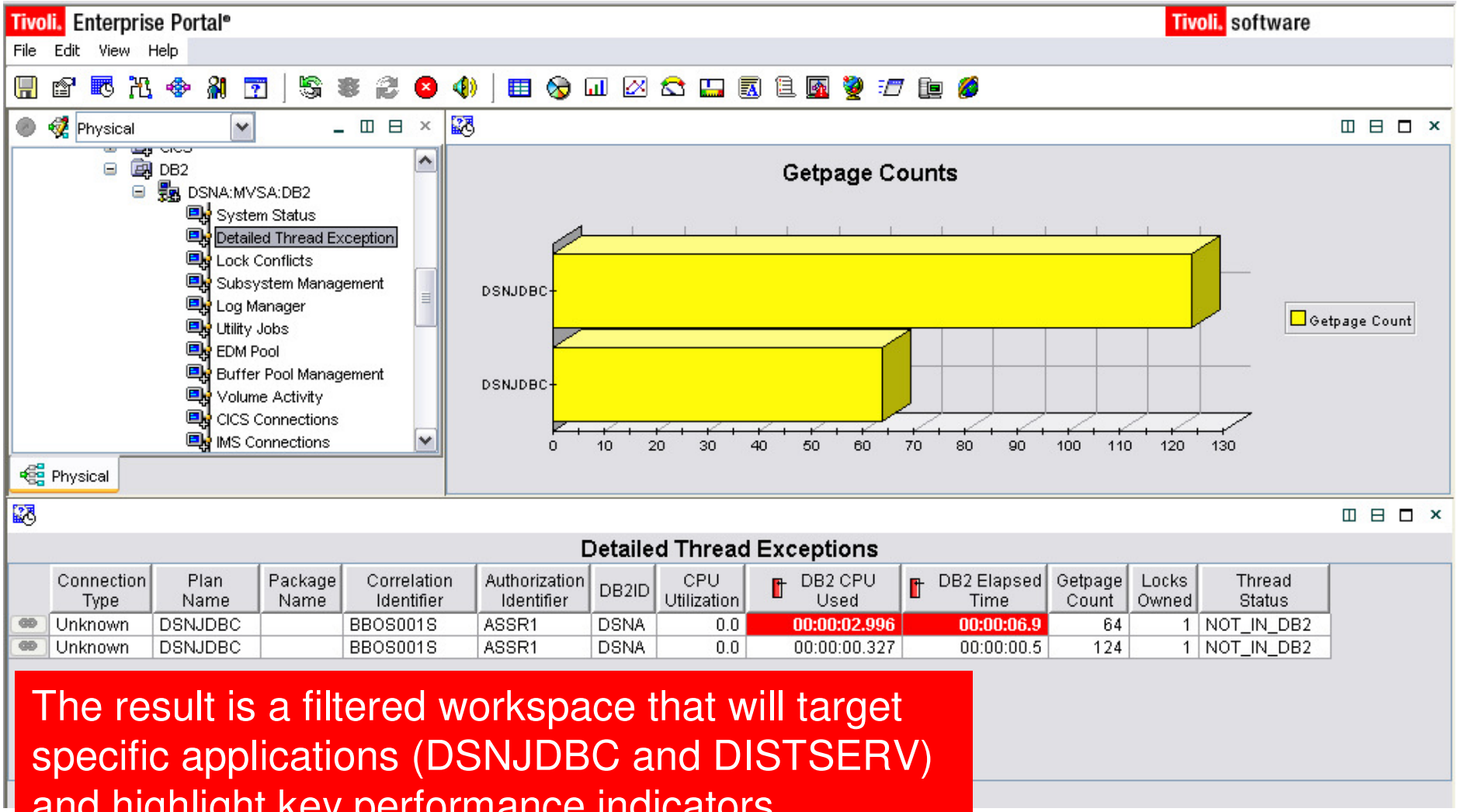
The Final SME Application Specific View



Connection Type	Plan Name	Package Name	Correlation Identifier	Authorization Identifier	DB2ID	CPU Utilization	DB2 CPU Used	DB2 Elapsed Time	Getpage Count	Locks Owned	Thread Status
Unknown	DSNJDBC		BBOS001S	ASSR1	DSNA	0.0	00:00:02.996	00:00:06.9	64	1	NOT_IN_DB2
Unknown	DSNJDBC		BBOS001S	ASSR1	DSNA	0.0	00:00:00.327	00:00:00.5	124	1	NOT_IN_DB2

The result is a filtered workspace that will target specific applications (DSNJDBC and DISTSERV) and highlight key performance indicators.

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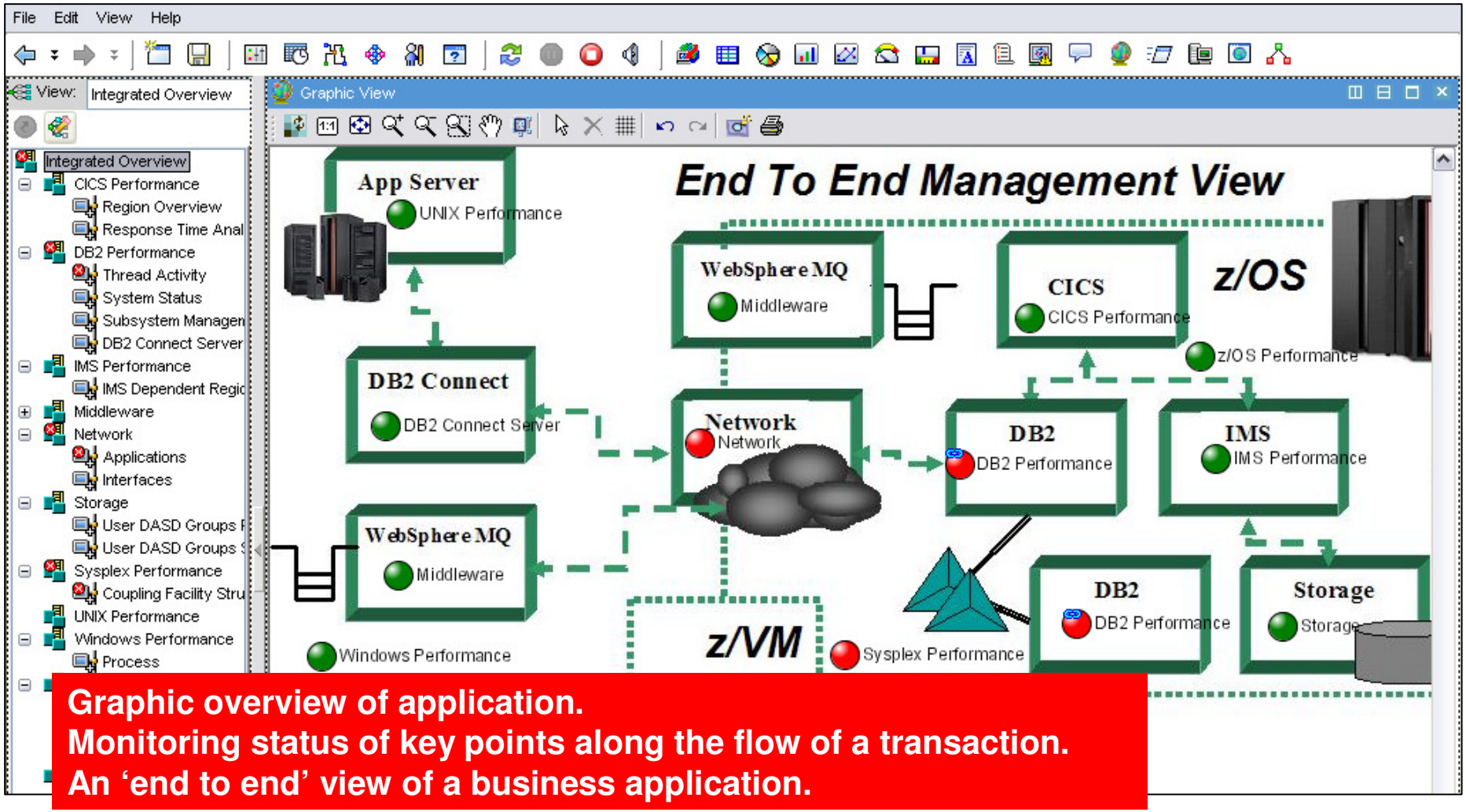
The End To End Business Application View



Graphic overview of application.
Monitoring status of key points along the flow of a transaction.
An 'end to end' view of a business application.

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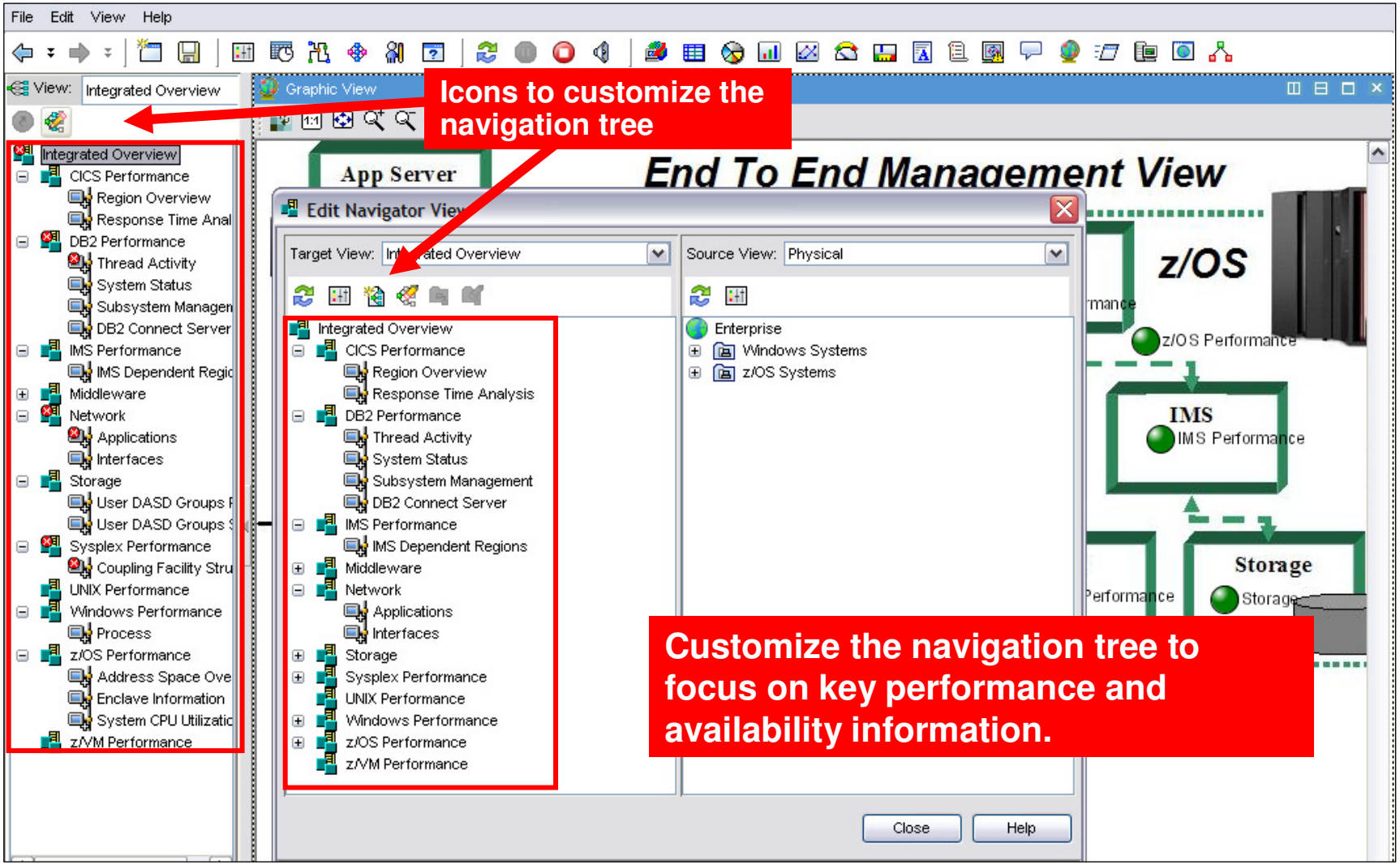
Business Application View
Navigation Tree Customization



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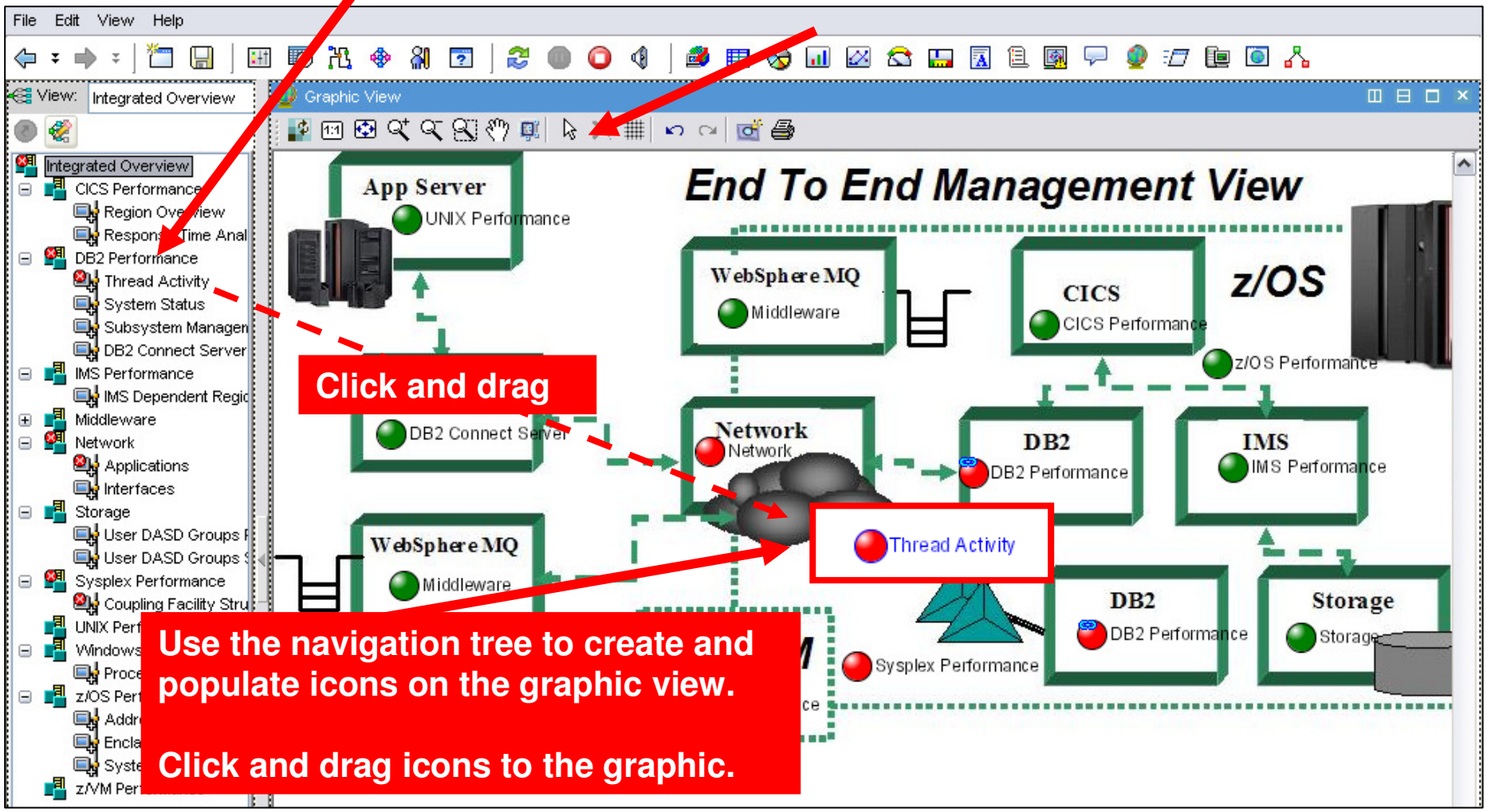
Customizing The End To End Business Application View



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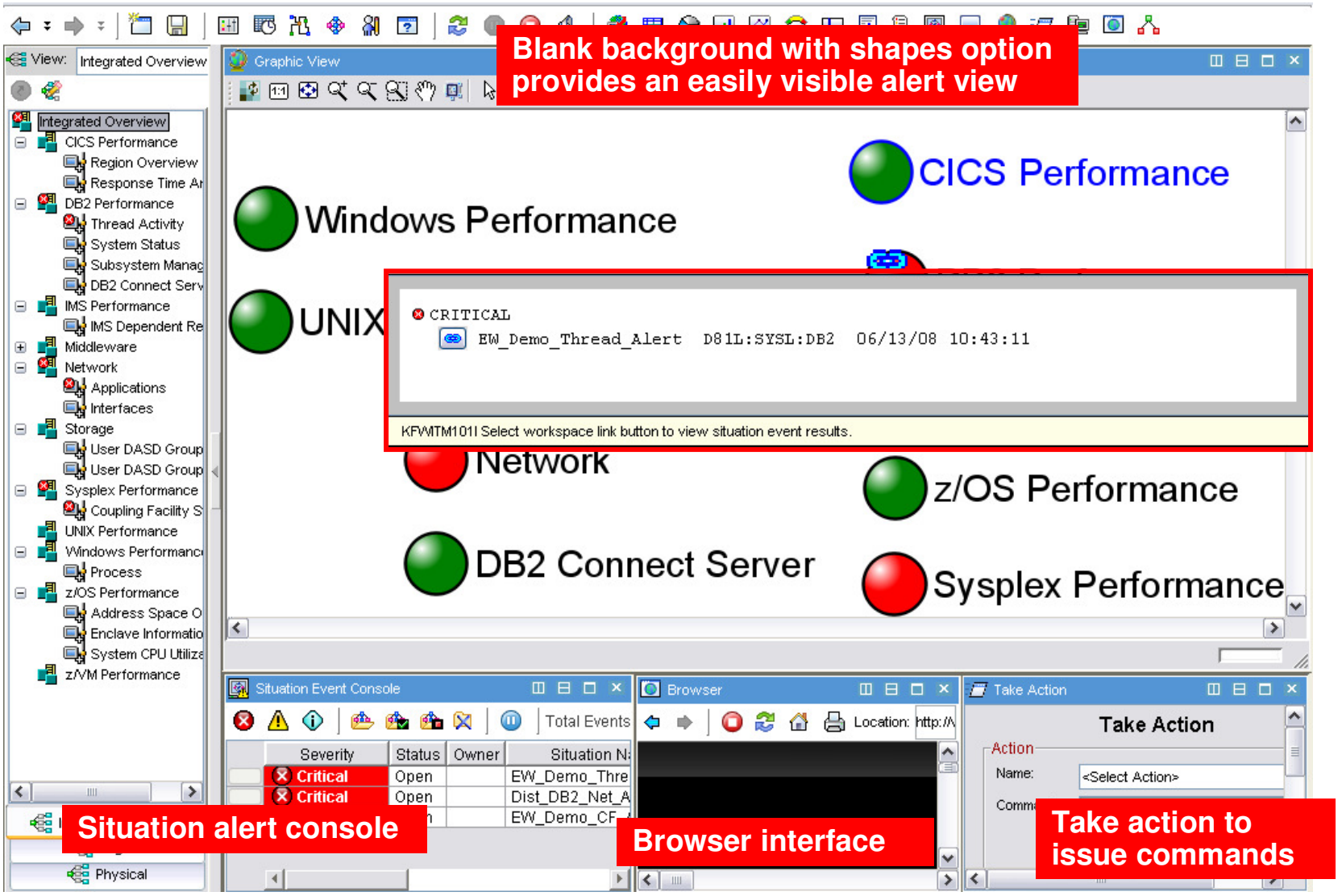
The Integrated Alert Management Overview



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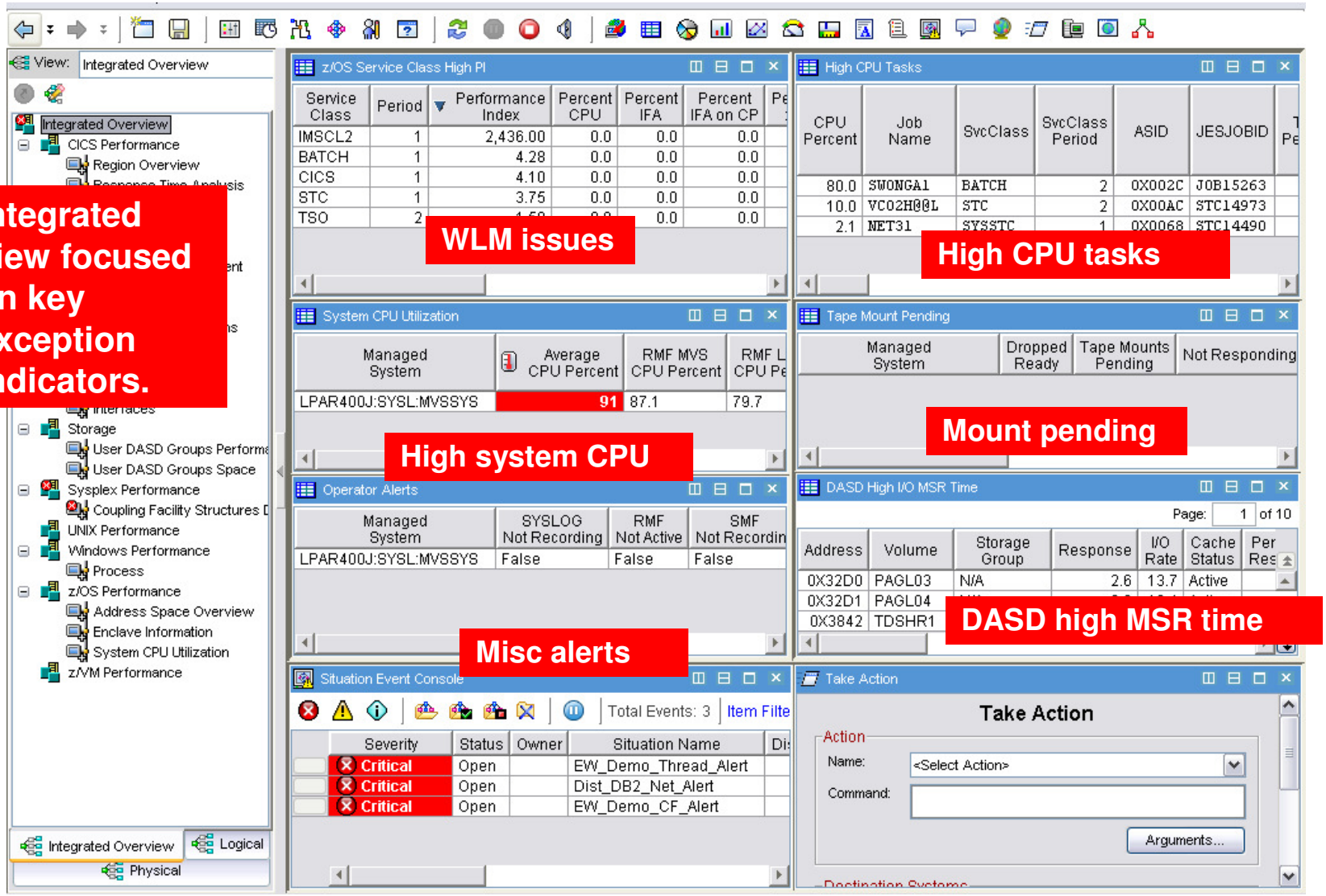
Management By Exception View



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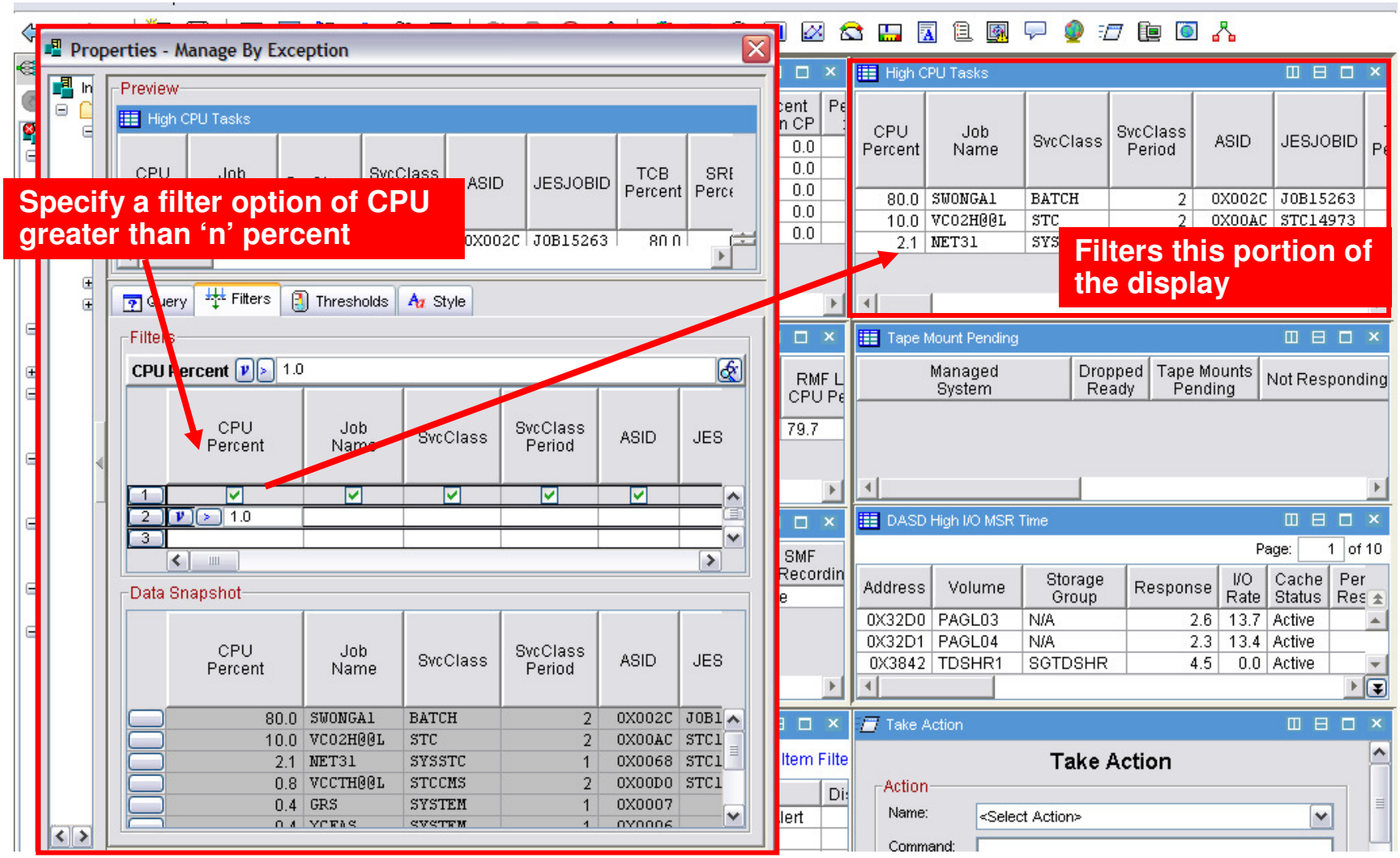
Creating A Management By Exception Workspace



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Tivoli Enterprise Portal Customization General Recommendations

- **Understand the target audience**
  - Understand their technical or management requirements
  - Understand their capabilities (display types, etc.)
- **Understand the capabilities of the TEP**
  - Be aware of the ability to combine information from a variety of sources
- **Understand that custom TEP workspace design is an iterative process**
  - Create prototypes and test
  - You probably will not get it perfect the first time
  - Improve and optimize
- **Test thoroughly to ensure that displays are responsive and meet requirements**

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More Example Workplaces

- **OMEGAMONon z/OS**
  - CPU Utilizaiton for all LPARs
  - Top Jobs by CPU for all LPARs
- **OMEGAMON for DB2**
  - Top Thread Exceptions for all DBs all LPARs
- **OMEGAMON MFN**
  - IPStack Status all stacks
  - All HPR with ABR Yellow or Red for all Stacks
  - Worst TCP/IP Connection Response times all Stacks
  - FTPs by duration and bytes
- **OMEGAMON on z/VM and Linux**
  - Top Linux CPU and Memory for all systems
- **OMEGAMON CICS**
  - Region overview cross system
  - Dumps cross Region and LPAR
  - Top Transactions by CPU cross system cross LPAR

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Summary

TEP top 10 TIPs	Benefits
Cross LPAR Views	**View all LPARs in one view**
Creating a New Navigator View	**Organize workspaces by user**
Cross Application Workspaces	**Combine OMEGAMONs for a given Application workspace**
Eliminate Multiple pages	**Allow columns to sort all rows at once**
Reduce Query data	**Query filter improves performance**
Customizing Tables and Charts	**View Thresholds to highlight problems**
Situations	**Turn off unnecessary situations**
Topology	**View fix levels and connectivity**
Built-in Tutorials	**TEP Online Education**
Tuning and ITMSUPER	**Tune OMEGAMON Infrastructure**

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Check Out My Blog

http://tivoliwithaz.blogspot.com

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References:

Narrated demos how to Create a cross LPAR workspace and Custom Query:

http://www-01.ibm.com/software/os/systemz/telecon/oct29/prz/

NOTE: Everyone should bookmark this page! Search on:
Recommended Maintenance Service Levels for OMEGAMON XE products on ITM V6.x

CCR2 OMEGAMON Tuning:

www.ibm.com/software/tivoli/features/ccr2/info.html

- ***2004 Issue 2*** Part 1: Common data collection overhead reduction tips
- ***2004 Issue 3*** Part 2: Reducing on-demand CNPS client overhead
- ***2004 Issue 4*** Part 3: OMEGAMON XE for CICS V100 and CICSplex V220
- ***2004 Issue 5*** Workload Manager— *Sysplex Tuning*
- ***2004 Issue 6*** Part 4: OS/390 and Sysplex *from*
- ***2004 Issue 7*** The DB2 trace facility and OMEGAMON II for DB2 historical collection considerations
- ***2004 Issue 10*** How to maintain time-dependent thresholds without the overhead of embedded situations
- ***2005 Issue 6*** Sysplex Best Practices – Part 1
- ***2005 Issue 7*** Sysplex Best Practices – Part 2
- ***2006 Issue 2*** Part 5: OMEGAMON XE for IMS(plex)
- ***2008 Issue 3*** Resource impact and optimization for Tivoli situation event processing

Live ITM 6.1 DEMO with OMEGAMON 4.1 Simulation

Order (SK4T-0622-06) http://www-01.ibm.com/support/docview.wss?uid=pub1sk4t062206

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