



## Leveraging Tivoli Enterprise Portal & Advanced Learning Concepts

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# PulseANZ2010

Meet the people who can help  
advance your infrastructure



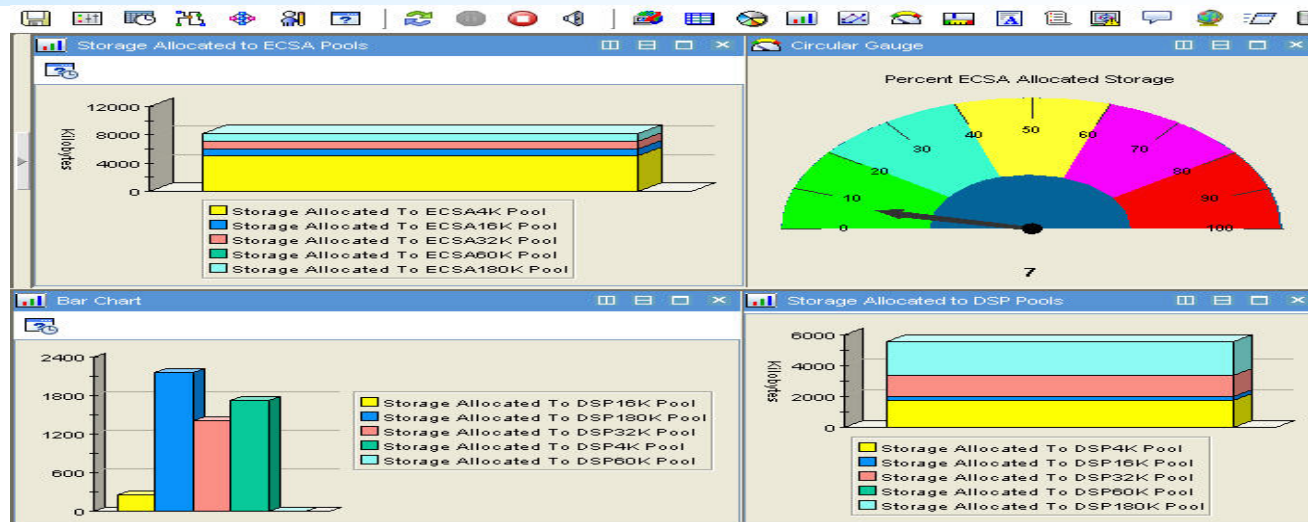


# What is the TEP?

## 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





# TEP - Terminology

The screenshot displays the Tivoli Enterprise Performance (TEP) console interface. On the left is the **Navigator View**, which shows a hierarchical tree of system components under the 'zView' view. The main area contains several performance dashboards:

- CPU Utilization by LPAR**: A 3D bar chart showing CPU usage for LPARs. A red box labeled 'View' points to the chart.
- Interfaces**: A 3D bar chart showing network interface usage for OSAF6C0, OSA2, and OSA2.
- TCP/IP Connections by LPAR**: A 3D bar chart showing TCP session counts for LPARs MVSB, MVSC, and MVSA.
- TCP/IP Stacks**: A 3D bar chart showing network stack metrics for LPARs MVSB, MVSC, and MVSA. A callout indicates '21 (MVSC)'.
- OSA Express**: A 3D bar chart showing OSA Express metrics for CF, DEMOZVM, and ZTECZVM.

At the bottom, there are two data tables:

System ID	Receive Datagram Rate	Packet Count	Output Packet Count	Input Datagrams in Error	Input Discards
MVSB	94	3948947	2938377	0	804046

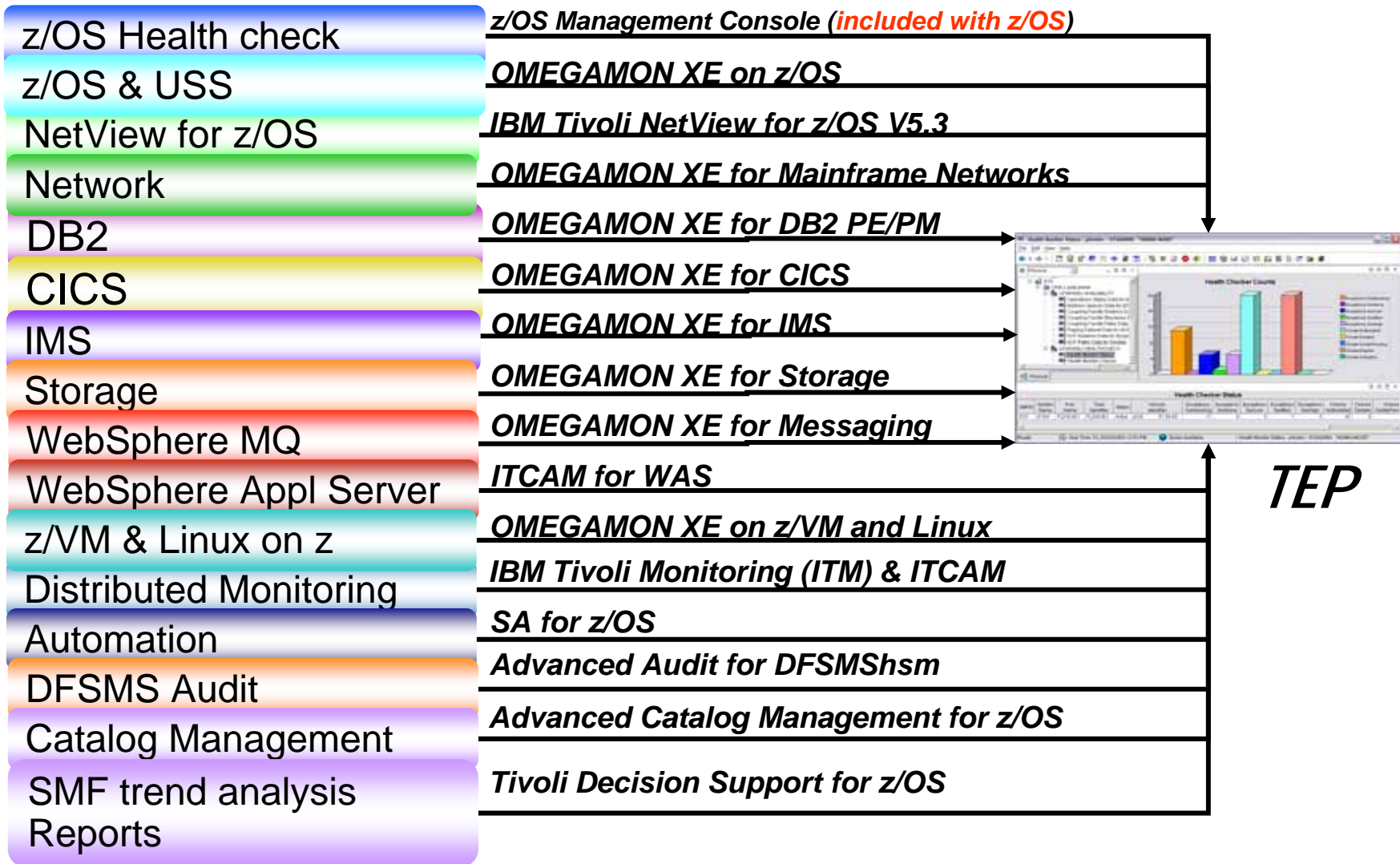
LPAR Name	LPAR Number	Kilobyte Rate In Per Minute	Kilobyte Rate Out Per Minute	Processor Utilization Per Five Minutes	Kilobyte Rate In Per Five Minutes
CF	1	2	2	0	

The status bar at the bottom shows: Hub Time: Tue, 02/10/2009 01:50 PM, Server Available, and IP Stacks and OSA cross LPAR - tivtpeps.demopkg.ibm.com - MS519.

**Workspace**

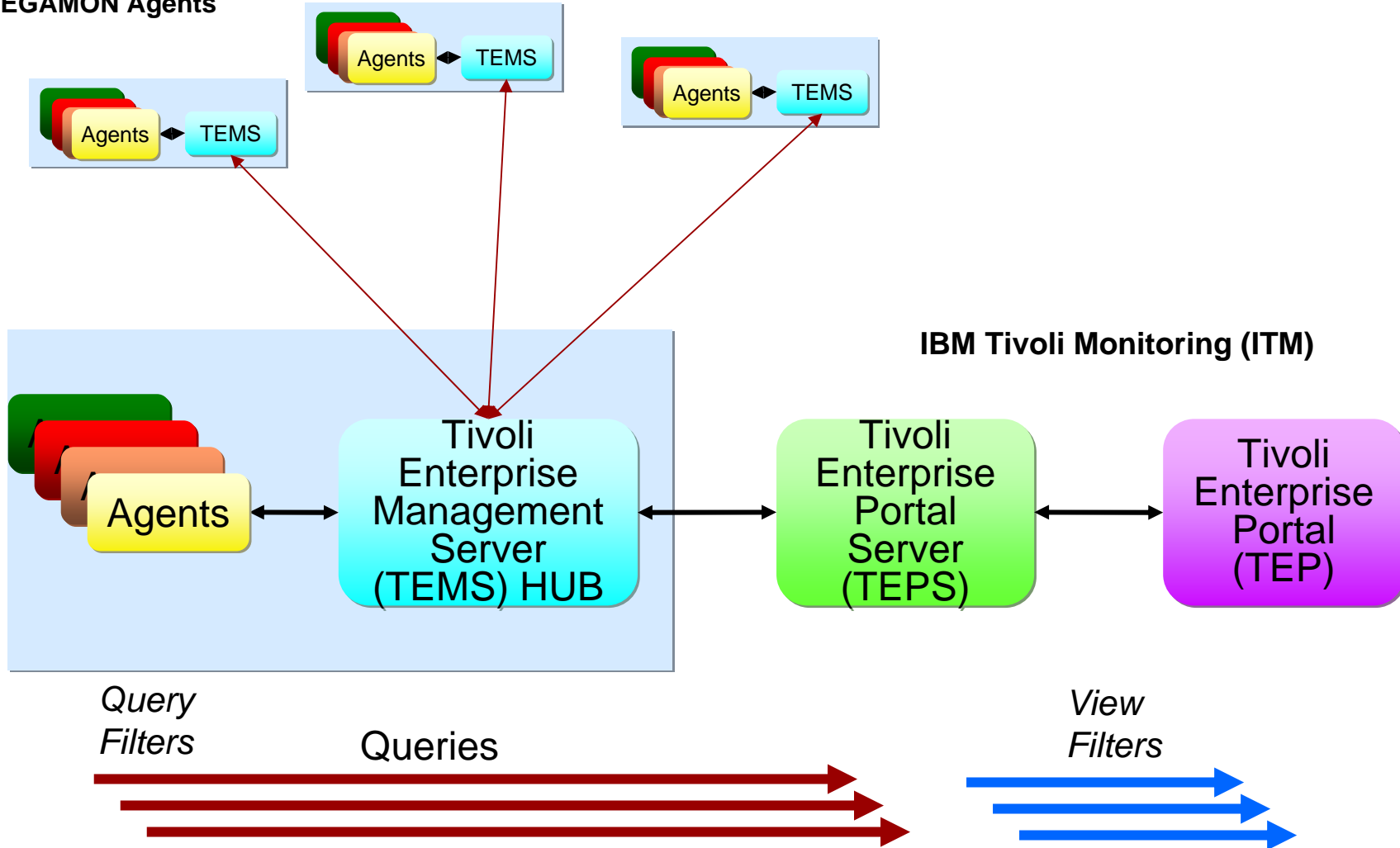


## Integrated with the TEP



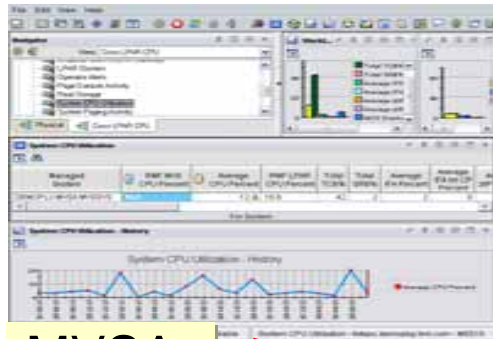
# OMEGAMON XE/ITM Infrastructure

OMEGAMON Agents





# Cross LPAR View - Example



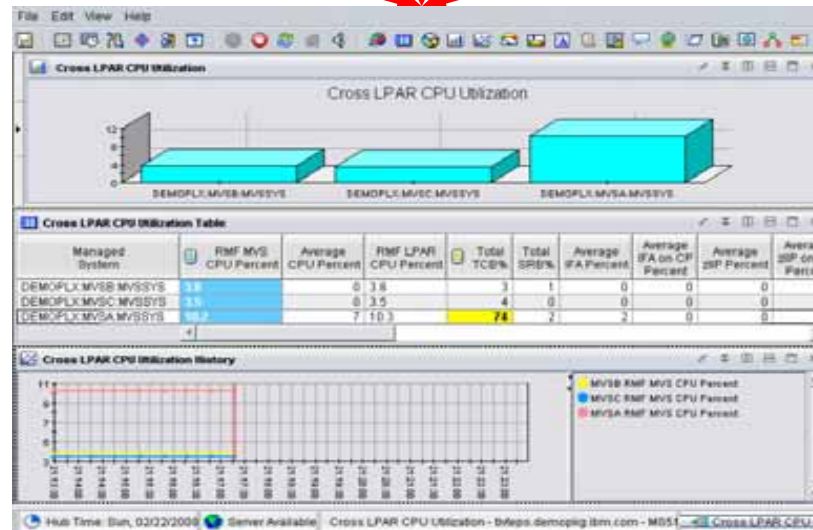
MVSA



MVSB



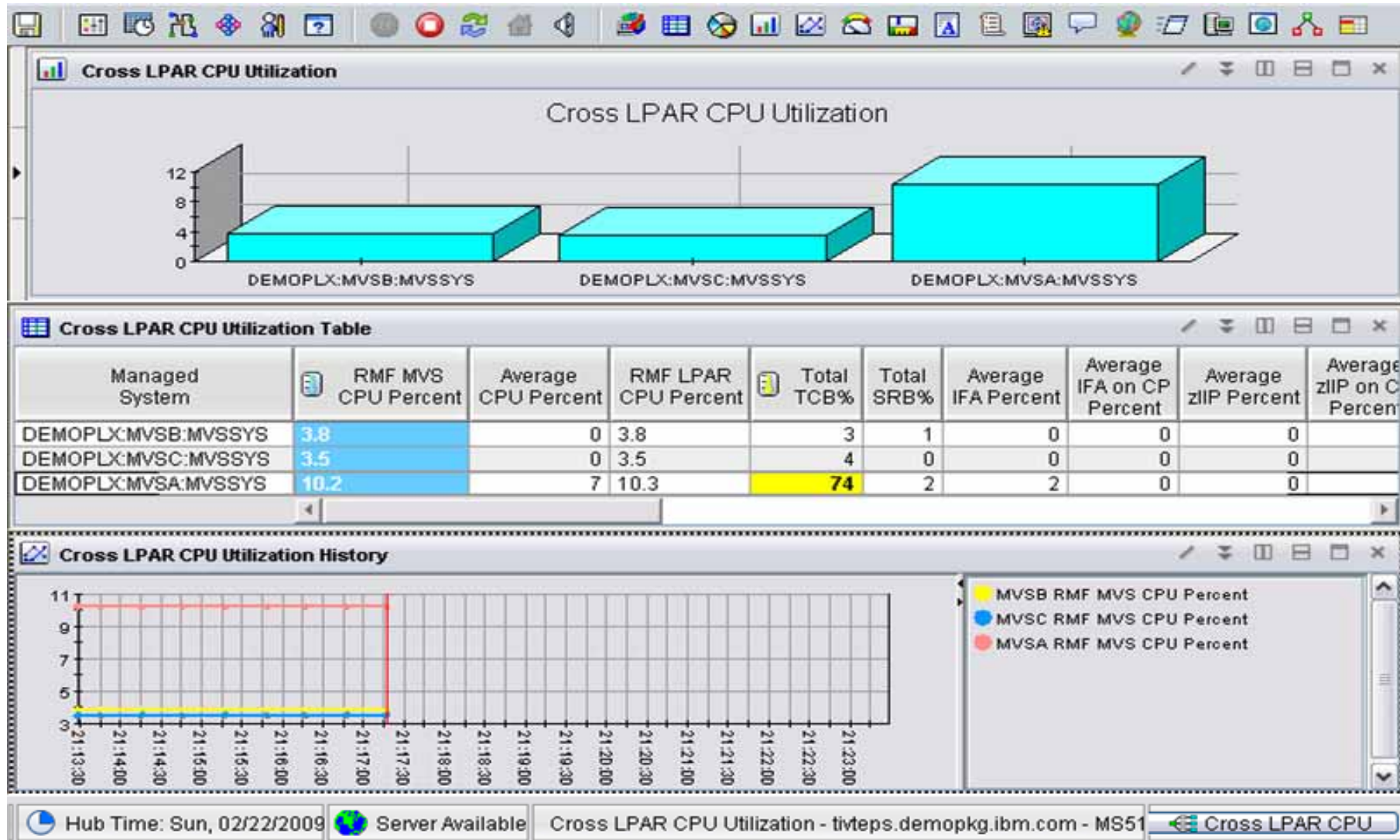
MVSC



MVSA  
MVSB  
MVSC

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

# Cross LPAR View – Example



# Table Customization – Thresholds

The screenshot displays a network monitoring application with three overlapping windows. The top window shows a table of network data with columns: Origin Node, Byte Rate, Collection Time, Application Name, Connection Type, and Local Port. The middle window shows a similar table with columns: Origin Node, Byte Rate, Collection Time, Application Name, and Connection Type. The bottom window shows a 'Thresholds' table with columns: Use Icons, Response Time, Response Time Variance, Telnet Appl Name, Telnet LU Name, and Segments Retransmitted. A 'Show Formula' dialog box is open, showing a formula for 'Response Time >= 100.00' and 'Segments Retransmitted >= 5', with a visual flowchart showing 'IF' branching into 'Critical' and 'Warning' levels. A red circle highlights a button in the bottom window.

**Table 1: Network Data (Top Window)**

Origin Node	Byte Rate	Collection Time	Application Name	Connection Type	Local Port
TCPIPL:SYSL	43545665	09/21/06 11:31:51	NET	UDP_Endpoint	12002
TCPIPL:SYSL	0	09/21/06 11:31:51	NET	UDP_Endpoint	
TCPIPL:SYSL	42354599	09/21/06 11:31:51	NET	UDP_Endpoint	
TCPIPL:SYSL	10464	09/21/06 11:31:51	VCCTH@@L	UDP_Endpoint	

**Table 2: Network Data (Middle Window)**

Origin Node	Byte Rate	Collection Time	Application Name	Connection Type
TCPIPL:SYSL	101	09/21/06 11:31:51	INETD4	TCP_Connectio
TCPIPL:SYSL	10546	09/21/06 11:31:51	VCCTH@@L	TCP_Connectio

**Table 3: Thresholds (Bottom Window)**

	Use Icons		Response Time	Response Time Variance	Telnet Appl Name	Telnet LU Name	Segments Retransmitted
1	<input type="checkbox"/>	Critical	>= 100.00				
2	<input type="checkbox"/>	Warning					>= 5

**Show Formula Dialog:**

```

Formula
(
(----- Critical -----)
Response Time >= 100.00)
(----- Warning -----)
Segments Retransmitted >= 5
    
```

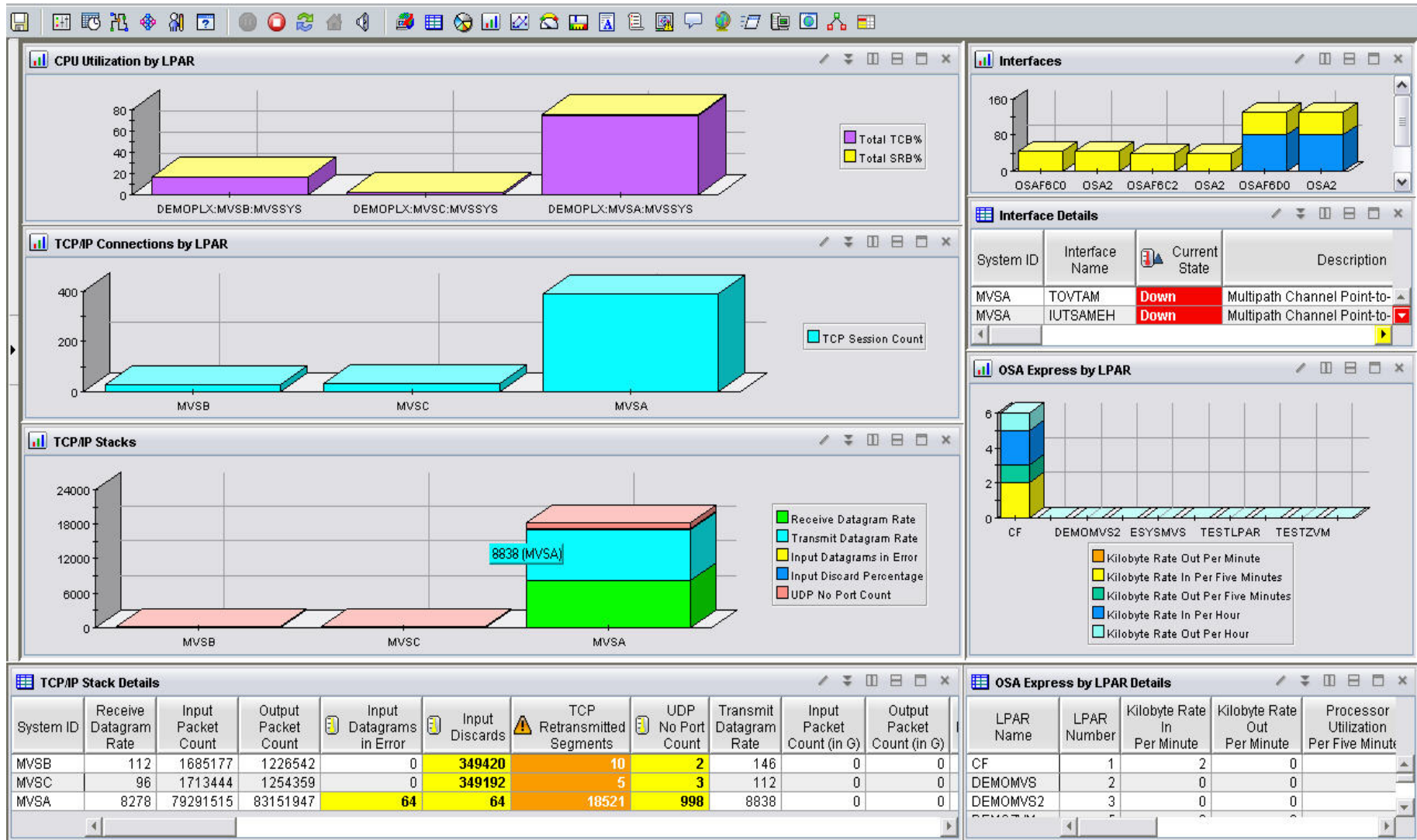
**Visual Flowchart:**

```

IF
├── Response Time GE 100.00 → Critical
└── Segments Retransmitted GE 5 → Warning
    
```



# Cross Application Example





## Advanced Learning Concepts – Situation Overhead

- Situation Monitor (SITMON) Overhead
  - Driven By Number Of Situations & Intervals
  - If A Situation References Any Attribute In A Table, All The Fields Of That Table Are Collected By The Agent
    - Some Tables Are More Expensive To Collect Than Others
      - R&D Rearranges Attributes/Tables For Efficiency
  - Each ‘Take Sample’ Has An Impact On Performance
    - Performance Impact Varies Depending On Data Collector Type
      - Background Based - OMEGAMON MQ, MFN, Storage
      - Foreground Based - CICS, IMS
      - Mix (Mostly Foreground) - z/OS (WLM), DB2



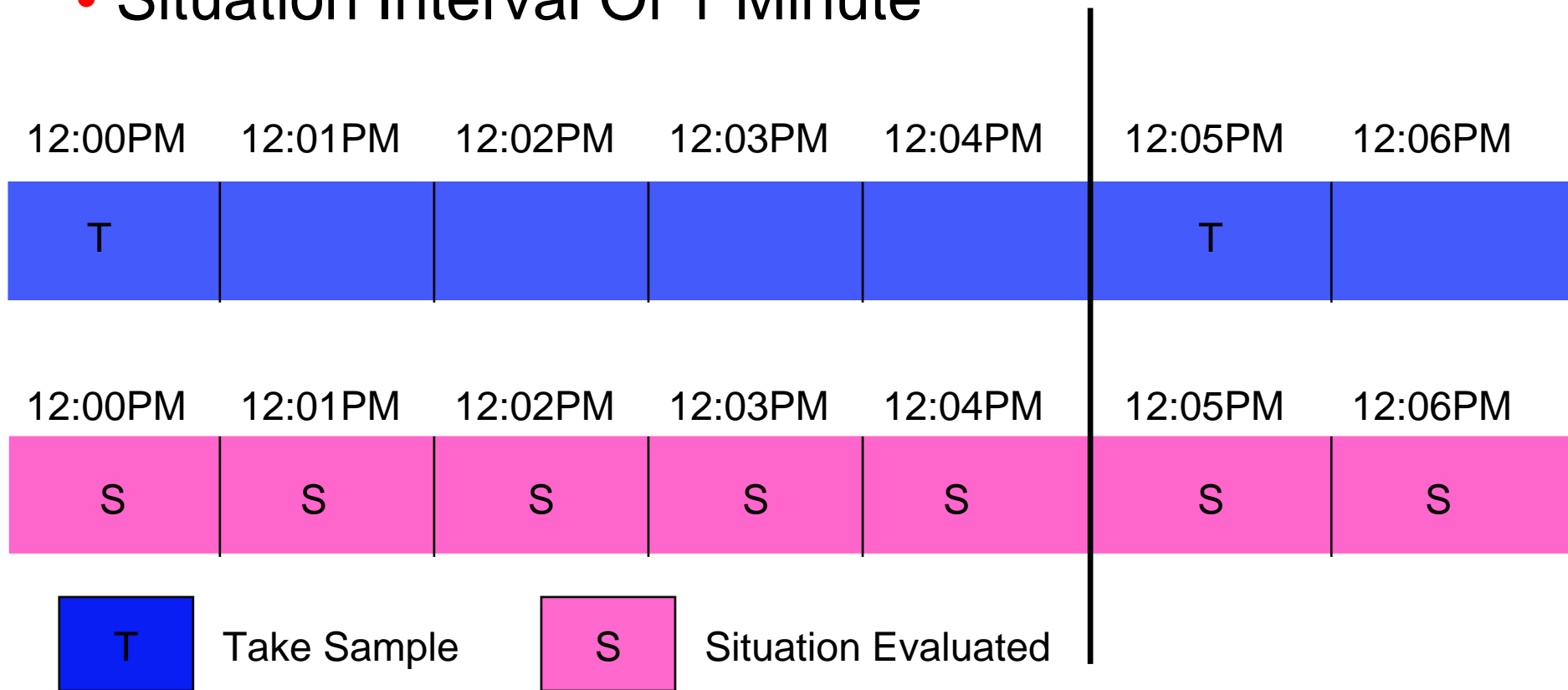
## Advanced Learning Concepts – Situation Overhead

- **Background Based Collectors** Collect Based On Sampling Interval
  - Sampling Interval Can Be User Defined
    - XE MQ = 60 Seconds
    - XE MFN = 5 Minutes
  - Situations Evaluate Data From The Last ‘Take Sample’
  - Situation Intervals Need To Consider Collector Sampling Interval
  - There Is No Sync. Between Collector Start Time And Sit. Eval. Time
  - Same Data Could Be Evaluated More Than Once
  - Situation Impact On Performance Normally Is Less Than A Foreground Based Collector
    - But Products Like XE WBI (i.e. MQ) Can Still Degrade Performance



## Advanced Learning Concepts – Background Based Collector

- Assume A 5 Min. Collector Interval
- Situation Interval Of 1 Minute





## Advanced Learning Concepts – Situation Overhead

- **Foreground Based Collectors** Are Driven
  - Based On Situation Intervals
  - Based On Requests From TEP Users
    - It Can Be A Bad Idea To Have Frequent TEP Refresh Intervals
      - Or A User Pressing F5 Constantly
      - Or Reports Which Return Many Rows Refreshed Constantly
  - By UADVISOR (Historical) Data Collection
  - By CUA User Pressing F5 Or Auto Refresh
- 'Take Sample' Can Have A Bigger Impact On Performance
  - Each Take Sample Drives Data Collection From The Managed System



## Advanced Learning Concepts – Situation Efficiency

- Situation Efficiency & Synchronization (a.k.a. DUPERIZATION)
  - Process By Which Multiple Situations Use The Same ‘Take Sample’
    - One Take Sample Will Gather Data For Multiple Situations
  - Objective Is To Reduce The Number Of ‘Take Samples’
  - DUPERIZED Situations Are Identified By Name Of `_Z_ ...`
    - For Example `_Z_CICSROV1`
    - `KRAIRA000` Message In IRA’s (Or TEMS) `RKLVLOG`
  - Number Of Predicates In A Single DUPERIZED Situation Is About 7 to 10
    - If You Create A Situation With Many Predicates It will Most Likely Not Be DUPERIZED
  - For A Situation To Be DUPERIZED There Are Several Conditions



## Advanced Learning Concepts – DUPER Eligibility

Same Attribute Group Required	Y
Same Interval Required	Y
Can Be Restarted	Y
Must Be AUTOSTARTED Exception : UADVISOR	Y
Combine Situations With Different Distribution Lists	Y
Maximum 10 Predicates	Y
New/Update Situation (Requires TEMS Restart)	N
UNTIL Clause Allowed	N
Display Item Allowed	N
Take Action Allowed	N
MISSING Function Allowed	N
STR/SUBSTR And SCAN Allowed (ITM6.2 Removes Restriction)	N
Group Functions (MIN, MAX, SUM, AVG, COUNT) Allowed	N
Event Persistent Situations Allowed	N

# Advanced Learning Concepts – Situation Efficiency

```

TN3270.WS - [32 x 80]
File Edit View Communication Actions Window Help
-----
Display Filter View Print Options Help
-----
SDFS OUTPUT DISPLAY CAN31C5 STC00172 DSID 101 LINE 1,496 COLUMNS 55- 134
COMMAND INPUT ==>
432,"ctira_insert_log") KRAIRA000, Starting CICSplex_ENQWaitCount_Critical <31
A., Producer(IRA Constructor)
0 @ 1AA338E0 ASSEMBLY 05/10/05 12:42
432,"ctira_insert_log") KRAIRA000, Starting CICSplex_CICSCPUHigh_Critical <314
., Producer(IRA Constructor)
0 @ 1AA38EA8 ASSEMBLY 05/10/05 12:42
432,"ctira_insert_log") KRAIRA000, Starting CICSplex_TSAuxCI_Critical <3145951
roducer(IRA Constructor)
0 @ 1AA4FB30 ASSEMBLY 05/10/05 12:47
432,"ctira_insert_log") KRAIRA000, Starting _Z_CICSROV1 <3145955,1048806> for
nstructor)
432,"ctira_insert_log") KRAIRA000, Starting CICSplex_TakingSDUMP_Critical <314
., Producer(IRA Constructor)
0 @ 1AA268C0 ASSEMBLY 05/10/05 12:41
432,"ctira_insert_log") KRAIRA000, Starting CICSplex_RTAGroup_Warning <3145959
roducer(IRA Constructor)
0 @ 1AA3A458 ASSEMBLY 05/10/05 12:42
432,"ctira_insert_log") KRAIRA000, Starting _Z_CICSSTOR0 <3145961,1048803> for
Constructor)
0 @ 1AA26128 ASSEMBLY 05/10/05 12:41
02,"InitGCS")
Build: 05262 Driver: 'ctms/kds/ctbld0'
005 Time: 04:41:45 build date: 'Mon 09/19/05' info: kms/kds prod ne
YS1:'
02,"InitGCS")
Build: 05262 Driver: 'ctms/kds/ctbld0'
005 Time: 04:41:45 build date: 'Mon 09/19/05' info: kms/kds prod ne
YS1:'
MA a 04/021
Connected to remote server/host 192.168.1.121 using lu/pool SCOTCP01 and port 23

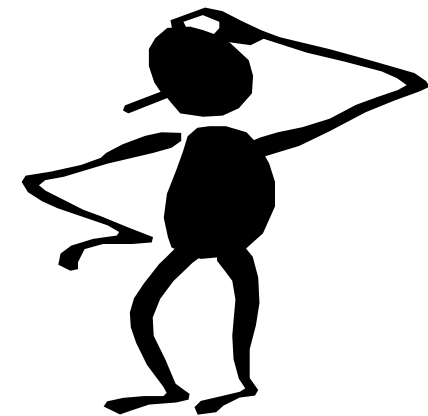
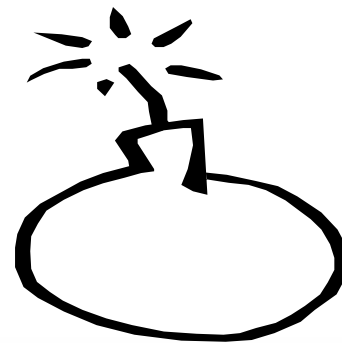
```





## Advanced Learning Concepts – Predicate Order

- Predicates Are Evaluated From Left To Right
- Numeric Attributes Are Processed Much Faster Than Text Attributes
- It Is Good Practice To List The Most Restrictive Predicate FIRST
  - IF QDEPTH EQ 0 AND QNAME EQ “TEAM2.APPL.QUEUE”  
Can Be Re-written As
  - IF QNAME EQ “TEAM2.APPL.QUEUE” AND QDEPTH EQ 0
- The First Situation Will Return Many More Rows To Be Evaluated For The Second Predicate



# Advanced Learning Concepts – Predicate Order

The screenshot shows the 'Queue Statistics - IBM-PGW7B7S5QIG - SYSADMIN \*ADMIN MODE\*' application. A dialog box titled 'Situation(s) for - Queue Statistics' is open, displaying configuration for a situation named 'Situation With Bad Predicate Order'.

**Description:** Situation With Bad Predicate Order

**Condition:**

Queue Name: TEAM2.APPL.QUEUE'

	Current Depth	Queue Name
1	EQ 0	TEAM2.APPL.QUEUE'
2		
3		

**Queue Name:** Name of a queue managed by the selected queue manager. Valid format is an alphanumeric string of up to 48 case-sensitive characters.

**Queue Type:** One of the following queue types: Local, Remote, Alias, Model, or Cluster. Valid values are Local=1, Model=2, Alias=3, Remote=6, Cluster=7.

**Sampling interval:** 0 / 0 : 0 : 30 (dd / hh : mm : ss)

**Sound:**  Enable critical.wav (Buttons: Play, Edit...)

**State:** Critical (Buttons: Add attributes..., Advanced..., Run at startup)

Buttons at the bottom: OK, Apply, Cancel, Help.



# Advanced Learning Concepts – Predicate Order

```
TN3270.WS - [32 x 80]
File Edit View Communication Actions Window Help
[Icons]
Display Filter View Print Options Help
-----
SDSF OUTPUT DISPLAY CANMQMON STC00039 DSID 101 LINE 1,591 COLUMNS 54- 133
COMMAND INPUT ==> SCROLL ==> CSR
,432,"ctira_insert_log") KRAIRA000, Starting MQ_BAD_Situation_Predicate1 <10490
Producer(IRA Constructor)
,179,"sendDataToProxy") Sending 89 rows for MQ_BAD_Situation_Predicate1 KMQ.QMQ
,179,"sendDataToProxy") Sending 89 rows for MQ_BAD_Situation_Predicate1 KMQ.QMQ
,179,"sendDataToProxy") Sending 89 rows for MQ_BAD_Situation_Predicate1 KMQ.QMQ
,179,"sendDataToProxy") Sending 89 rows for MQ_BAD_Situation_Predicate1 KMQ.QMQ
,179,"sendDataToProxy") Sending 1 rows for HEARTBEAT KMQ.RNODESTS. <1046810,104
,179,"sendDataToProxy") Sending 89 rows for MQ_BAD_Situation_Predicate1 KMQ.QMQ
,179,"sendDataToProxy") Sending 89 rows for MQ_BAD_Situation_Predicate1 KMQ.QMQ
,179,"sendDataToProxy") Sending 89 rows for MQ_BAD_Situation_Predicate1 KMQ.QMQ
,179,"sendDataToProxy") Sending 89 rows for MQ_BAD_Situation_Predicate1 KMQ.QMQ
,179,"sendDataToProxy") Sending 89 rows for MQ_BAD_Situation_Predicate1 KMQ.QMQ
,179,"sendDataToProxy") Sending 89 rows for MQ_BAD_Situation_Predicate1 KMQ.QMQ
,179,"sendDataToProxy") Sending 89 rows for MQ_BAD_Situation_Predicate1 KMQ.QMQ
,179,"sendDataToProxy") Sending 89 rows for MQ_BAD_Situation_Predicate1 KMQ.QMQ
,179,"sendDataToProxy") Sending 89 rows for MQ_BAD_Situation_Predicate1 KMQ.QMQ
,179,"sendDataToProxy") Sending 89 rows for MQ_BAD_Situation_Predicate1 KMQ.QMQ
,179,"sendDataToProxy") Sending 89 rows for MQ_BAD_Situation_Predicate1 KMQ.QMQ
MA a 05/021
Connected to remote server/host 192.168.1.121 using lu/pool SCOTCP01 and port 23
```

# Advanced Learning Concepts – Predicate Order

The screenshot displays the 'Queue Statistics - IBM-PGW7B7S5QIG - SYSADMIN \*ADMIN MODE\*' window. A dialog box titled 'Situation(s) for - Queue Statistics' is open, showing the configuration for a predicate named 'MQ\_BAD\_Situation\_Predicate2'.

**Description:** Bad Situation Second Predicate

**Condition:**

	Queue Name
1	EQ 'TEAM2.APPL.QUEUE'
2	
3	

**Queue Name:** Name of a queue managed by the selected queue manager. Valid format is an alphanumeric string of up to 48 case-sensitive characters.

**Queue Type:** One of the following queue types: Local, Remote, Alias, Model, or Cluster. Valid values are Local=1, Model=2, Alias=3, Remote=6, Cluster=7.

**Sampling interval:** 0 / 0 : 15 : 0 (dd hh mm ss)

**Sound:**  Enable critical.wav (Buttons: Play, Edit...)

**State:** Critical (Buttons: Add attributes..., Advanced..., Run at startup)

Buttons at the bottom: OK, Apply, Cancel, Help.

# Advanced Learning Concepts – Predicate Order

**Situation(s) for - Queue Statistics**

Condition Distribution Expert Advice Action Until

Description: Rows Returned by first Predicate

Condition:

	Current Depth
1	EQ 0
2	
3	

Click inside a cell of the tabular editor above to see a description of the attribute for that column and to compose the expression.  
Add an attribute to the condition by clicking Add Attributes and selecting the attributes you want to include.

Buttons: Add attributes... Advanced...

Sampling interval: 0 / 0 : 0 : 30 (dd hh mm ss)

Sound:  Enable critical.wav Play Edit...

State:  Critical  Run at startup

Buttons: OK Apply Cancel Help

CSQ1:SYS1:MQESA

Trigger Control	Trigger Type
No	None
No	None
No	None
No	None
No	None
No	None
No	None
Yes	Every
No	Every
No	None
No	None
No	None





# Advanced Learning Concepts – Predicate Order

```
TN3270.WS - [32 x 80]
File Edit View Communication Actions Window Help
[Icons]
Display Filter View Print Options Help
-----
SDSF OUTPUT DISPLAY CANMQMON STC00039  DSID   101 LINE 1,766   COLUMNS 46- 125
COMMAND INPUT ===>
>
dspt.cpp,179,"sendDataToProxy") Sending 90 rows for MQ_BAD_Situation_Predicate1
>
uilog.cpp,432,"ctira_insert_log") KPAIRA000, Starting MQ_BAD_Situation_Predicate2
UEUES., Producer(IRA Constructor)
dspt.cpp,179,"sendDataToProxy") Sending 1 rows for MQ_BAD_Situation_Predicate2 K
***** BOTTOM OF DATA *****
MA a 05/021
Connected to remote server/host 192.168.1.121 using lu/pool SCOTCP01 and port 23
```



## Advanced Learning Concepts – Predicate Order

- It Is Good Practice To List The Most “Expensive” Test Predicate Last
  - IF QNAME EQ “1,PROD.” AND QDEPTH GT 0  
Can Be Re-written As
  - IF QDEPTH GT 0 AND QNAME EQ “1,PROD.”
- In This Situation We Obviously Don’t Care For PROD\* Queues Where QDEPTH = 0, But The First Sit. Will Still Gather Them Up.
- STR/SUBSTR Predicate Listed Last For Max. Efficiency



## In Summary, What Are Inefficient Situations?

- Situations That Are Not DUPER Eligible
- Situations The CMS Has To Evaluate Regardless Of Predicate Order
  - Functions Also Make Them DUPER Ineligible
    - MISSING
    - COUNT
    - MIN, MAX
    - AVERAGE
    - SUM
- And Functions That Cause Excessive IRA Overhead
  - STR (SUBSTR) – Much More Efficient Than SCAN
  - SCAN – STR/SCAN Still Duper Ineligible CMVC Opened
- Situations That Use Bad Predicate Order
- ...This Is NOT A Complete List

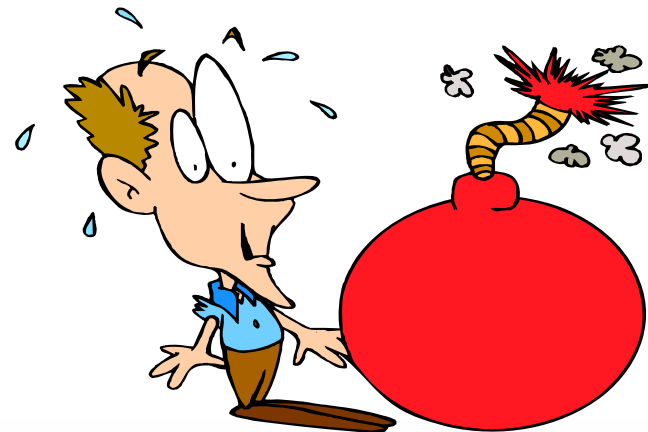






## Advanced Learning Concepts – Situation Distribution

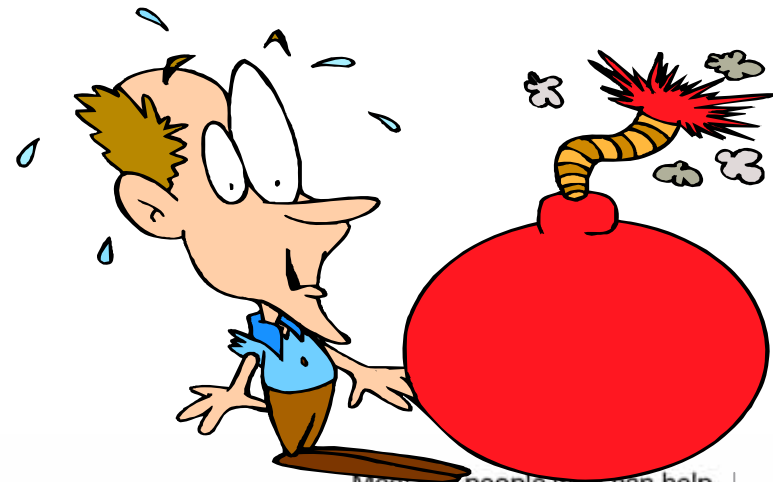
- **Managed System Lists** – TEMS Startup Overhead
  - Some OMEGAMON Agents Have Sub-Nodes (MQ On z/OS, CICS & DB2)
    - One Agent Monitors Multiple Instances Of A Subsystem
  - OMEGAMON XE CICS Automatically Discovers All CICS Regions
    - Unless Configured Otherwise
  - All Discovered Regions Added To The \*CICS Managed System List
  - \*CICS Is In The Distribution List For All Product Provided Situations
  - XE CICS Has Over 200 Product Provided Situations





## Advanced Learning Concepts – Situation Distribution

- **Managed System Lists – TEMS Startup Overhead**
  - At Startup TEMS Must Distribute All \*CICS Situations To Each IRA
    - Regardless If They Are Auto Started Or Not
  - Situations Are Distributed So They Appear On The TEP Navigator view
    - Associated With The Correct Leaf
  - This Increases HUB TEMS Startup Time & Consumes Additional CPU





# Advanced Learning Concepts – Situation Distribution

**Physical - Microsoft Internet Explorer**

File Edit View Favorites Tools Help

Back

Address: http://...

Welcome MS172

**Tivoli Enterprise**

File Edit View

View: Physical

Physical

Open Situation

Sysplex

NT

KS3\_HSM\_

**Edit Managed System Lists**

Managed System List: \*MVS\_CICS

**Applications**

- Active Directory
- AF/REMOTE Agent
- Alert Emitter for HP OpenView
- Alert Emitter for HP OpenView/IT
- All Managed Systems
- CICSPlex
- \*MVS\_CICS**
- DB2
- eBP Application Manager
- eBP Client
- eBP LDAP Monitor
- eBP Server
- End User Response Time
- Generic Configuration
- HP OpenView
- HP OpenView IT/Operations
- i5/OS
- IBM Cryptographic Coprocessor
- IBM Tivoli Monitoring 5.x Endpoint
- IBM Tivoli Monitoring 5.x Endpoint
- IMS
- J2EE and MOPFW and PlugIn Appl
- J2EE and MOPFW Application Ser
- J2EE and PlugIn Application Serv
- J2EE Server
- J2EE Server Version 4
- Linux OS
- Mainframe Networks
- Microsoft SQL Server
- MOPFW Server
- MQSERIES
- MVS Console Agent
- MVS DB2

**Assigned**

- MVSA.CICSAO
- MVSA.CICSAOR1
- MVSA.CICSAOR2
- MVSA.CICSAOR3
- MVSA.CICSAOR4
- MVSA.CICSDM01
- MVSA.CICSDM02
- MVSA.CICSDM03
- MVSA.CICSDM04
- MVSA.CICSDM05
- MVSA.CICSDM06
- MVSA.CICSDM07
- MVSA.CICSDM08
- MVSA.CICSDM09
- MVSA.CICSDM10
- MVSA.CICSDM11
- MVSA.CICSDM12
- MVSA.CICSDM13
- MVSA.CICSDM14
- MVSA.CICSDM15
- MVSA.CICSDM16
- MVSA.CICSDM17
- MVSA.CICSDM18
- MVSA.CICSDM19
- MVSA.CICSDM20
- MVSA.CICSDM21
- MVSA.CICSDM22
- MVSA.CICSDM23
- MVSA.CICSDM24
- MVSA.CICSDM25
- MVSA.CICSTIV1
- MVSA.CICSTIV2
- MVSA.CICSTIV3

**Available Managed Systems**

OK Cancel Apply Help

Hub Time: Tue, 04/04/2006 04:54 AM Server Available Physical - hqdn2.demopkg.ibm.com - MS172

Applet CMWApplet started Local intranet



# Advanced Learning Concepts – Situation Distribution

Physical - Microsoft Internet Explorer

Situation Editor

Formula Distribution Expert Advice Action Until

Situations

- Active Directory
- AF/REMOTE Agent
- Alert Emitter for HP OpenView
- Alert Emitter for HP OpenView/IT
- All Managed Systems
- CICSplex
  - CICSplex\_AIDs\_Critical
  - CICSplex\_AIDs\_VWarning
  - CICSplex\_AtClassMax\_Critical
  - CICSplex\_AtClassMax\_VWarning
  - CICSplex\_AtMaxTask\_Critical
  - CICSplex\_AtMaxTask\_VWarning
  - CICSplex\_CICS CPUHigh\_Critical
  - CICSplex\_CICS CPUHigh\_VWarning
  - CICSplex\_CICS CPULow\_Critical
  - CICSplex\_CICS CPULow\_VWarning
  - CICSplex\_ClassMax\_Critical
  - CICSplex\_ClassMax\_VWarning
  - CICSplex\_CSML\_delay\_in\_FC
  - CICSplex\_DB2Abort\_Critical
  - CICSplex\_DB2Abort\_VWarning
  - CICSplex\_DB2Attached\_Critical
  - CICSplex\_DB2Attached\_VWarning
  - CICSplex\_DB2MaxThreads\_Critical
  - CICSplex\_DB2MaxThreads\_VWarning
  - CICSplex\_DB2Shutdown\_Critical
  - CICSplex\_DB2Shutdown\_VWarning
  - CICSplex\_DB2ThreadHWM\_Critical
  - CICSplex\_DB2ThreadHWM\_VWarning
  - CICSplex\_DB2ThreadUse\_Critical
  - CICSplex\_DB2ThreadUse\_VWarning
  - CICSplex\_DB2Wait\_Critical

Assigned

\*MVS\_CICS

Available Managed Systems

- MVSA.CICSAO
- MVSA.CICSAOR1
- MVSA.CICSAOR2
- MVSA.CICSAOR3
- MVSA.CICSAOR4
- MVSA.CICS DM01
- MVSA.CICS DM02
- MVSA.CICS DM03
- MVSA.CICS DM04
- MVSA.CICS DM05
- MVSA.CICS DM06
- MVSA.CICS DM07
- MVSA.CICS DM08
- MVSA.CICS DM09

Available Managed System Lists

Edit Managed System Lists

OK Cancel Apply Help

Hub Time: Tue, 04/04/2006 04:53 AM Server Available Physical - hqndt2.demopkg.ibm.com - MS172

Applet CMWApplet started Local intranet



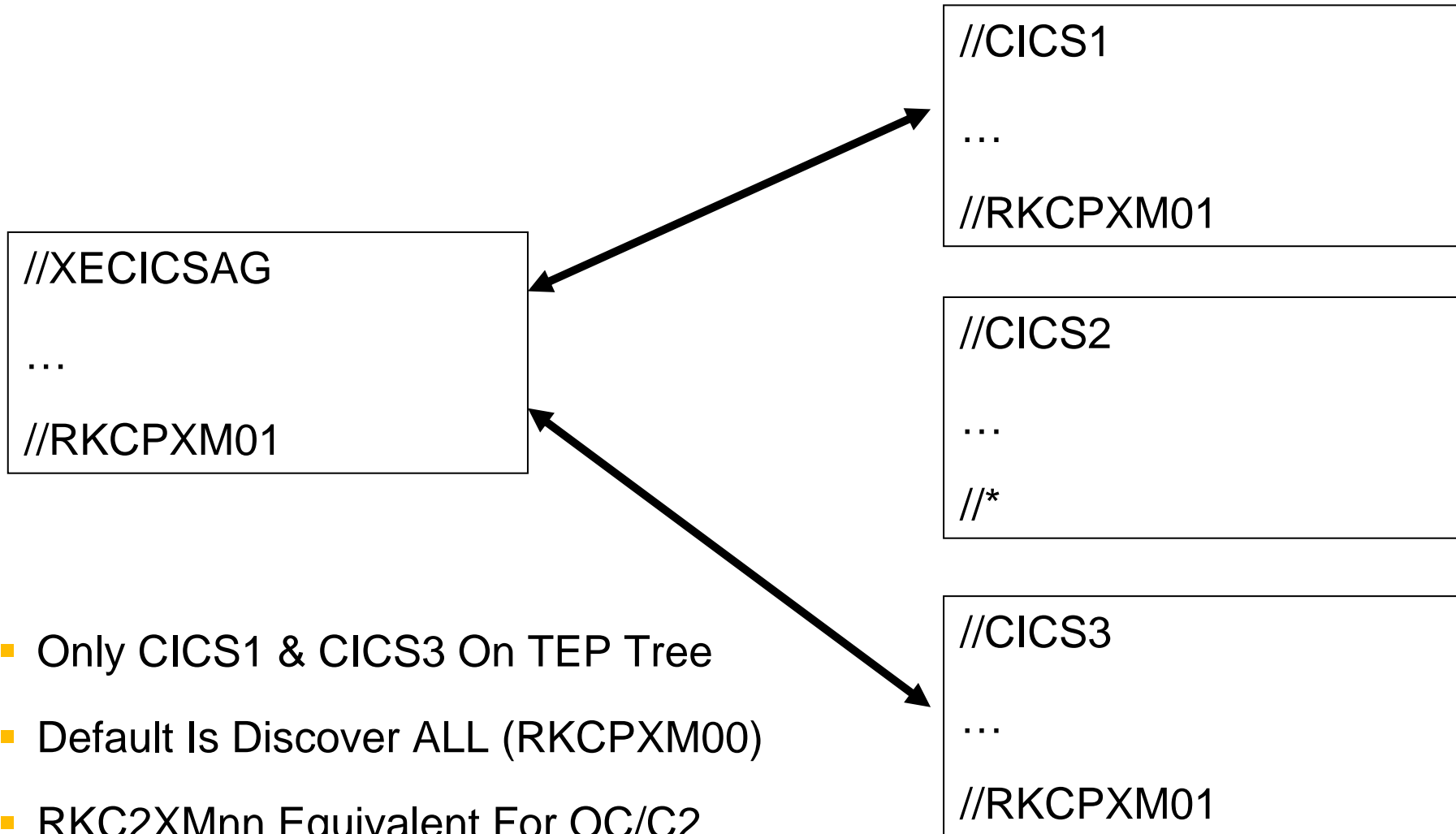
## Advanced Learning Concepts – Situation Distribution

- How To Avoid This Overhead ?
  - Limit The Regions The IRA Discovers
    - RKCPXMxx DD DUMMY
  - Create A Different Managed System List For Monitored Nodes
    - For Example \*CICS\_Prod
  - Remove \*CICS List From Situations You Don't Want To Start
    - Auto Start Or Dynamically Start
  - Review All Situations And Decide Which Ones Customer Really Needs
    - Auto Started Or Dynamically Started
- Concept Applies To Any XE Product





## Advanced Learning Concepts – RKCPXMnn DD



- Only CICS1 & CICS3 On TEP Tree
- Default Is Discover ALL (RKCPXM00)
- RKC2XMnn Equivalent For OC/C2

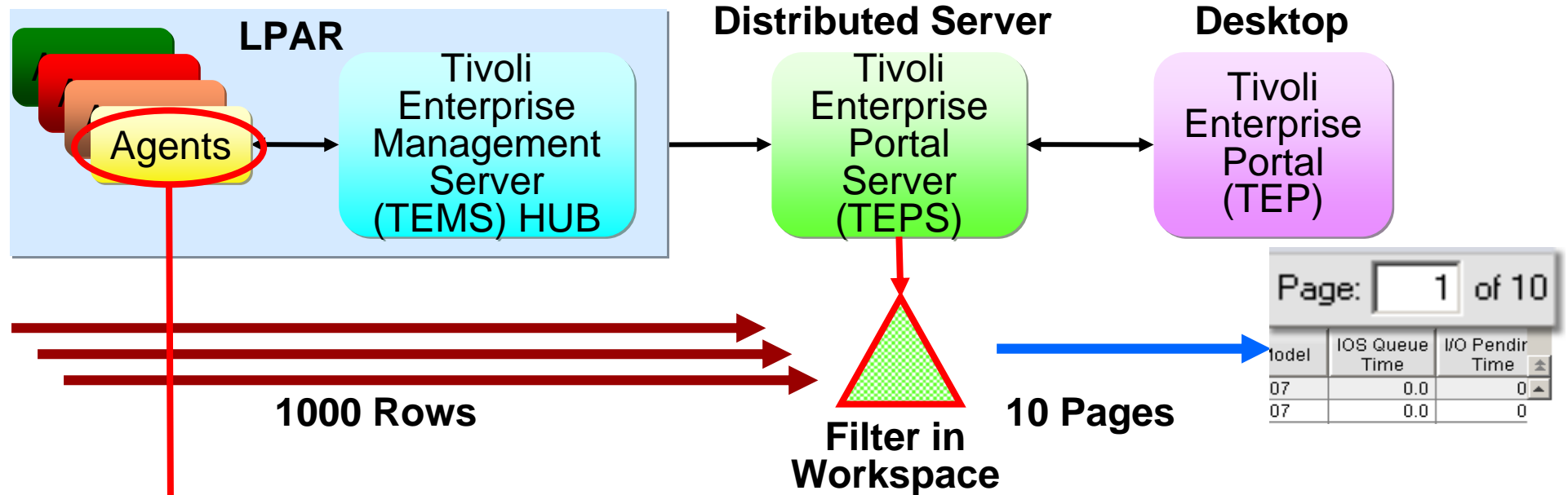


# Advanced Learning Concepts – RKCPXMnn DD

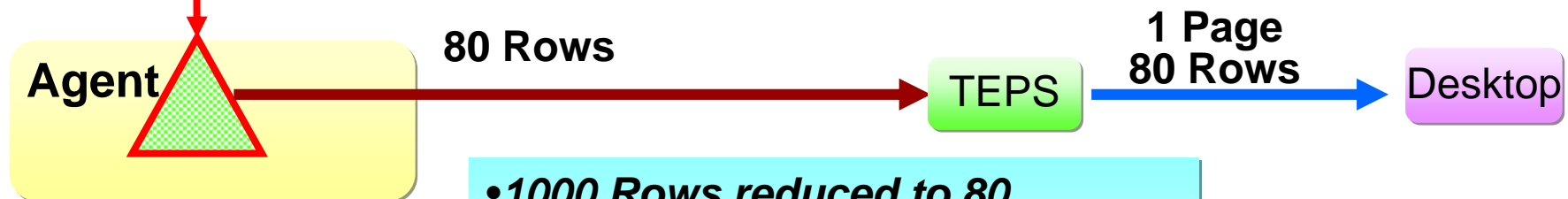
```
EDIT      CENTER.PROCLIB(CICSAOR1)
Command ==> _____
023800 //*****
023900 //EYUHISTA DD DISP=OLD,DSN=&I
024000 //EYUHISTB DD DISP=OLD,DSN=&I
024100 //EYUHISTC DD DISP=OLD,DSN=&I
024200 //*****
024300 //* CICS IA datasets
024400 //*****
024500 //CINT      DD SYSOUT=*
024600 //*****
024700 //*****
024800 //* OMEGAMON XE DDs
024900 //*****
025000 //RKCPXM01  DD DUMMY
025100 //*****
*****
```

```
File Edit Edit_Settings Menu U
EDIT      CANDLET.XEGA.PROCLIB(XECI
Command ==> _____
000136 //*****
000137 //* CICS LIMITING DDs
000138 //*****
' ' ' ' //RKCPXM01 DD DUMMY_
*****
```

## Apply Filter at TEPS in Workspace Properties



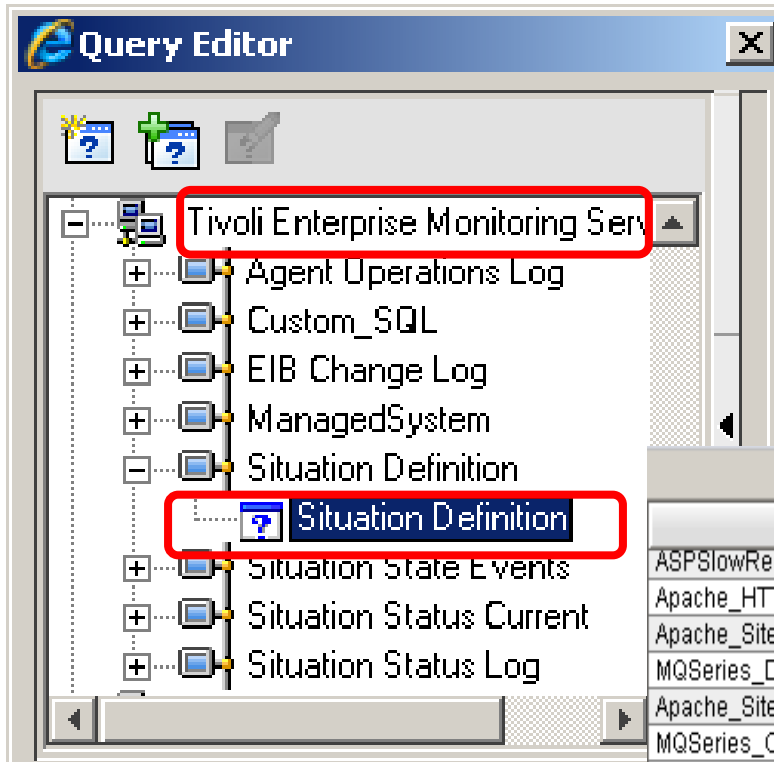
## Or Apply Filter at Agent with Custom Query



- 1000 Rows reduced to 80
- Reduced overhead
- Faster Response Time



# List ALL Active Situations



- To View all situations in Enterprise:
- Create new workspace
  - Situation Definition query
    - Under **Tivoli Enterprise Monitoring Server**

All Defined Situations			
Situation Name	<input checked="" type="checkbox"/> Auto Start	Interval Seconds	Description
ASPSlowRequests	*YES	000060	ASP requests are dispatched too slow.
Apache_HTTP_Stopped	*YES	000030	The Apache HTTP server is stopped.
Apache_Site_Down	*YES	000030	The Web site is down.
MQSeries_Dead_Letter	*YES	000500	Dead Letter Queue is not empty
Apache_Site_failed	*YES	000030	Server failures per second violation.
MQSeries_Channels_Indoubt	*YES	000500	At least one channel is In Doubt
WASOutOfHeapSpace	*YES	000500	WebSphere Application Server out of Heap Space.
WASNotConnected	*YES	000500	WebSphere Application Server is Not Connected.

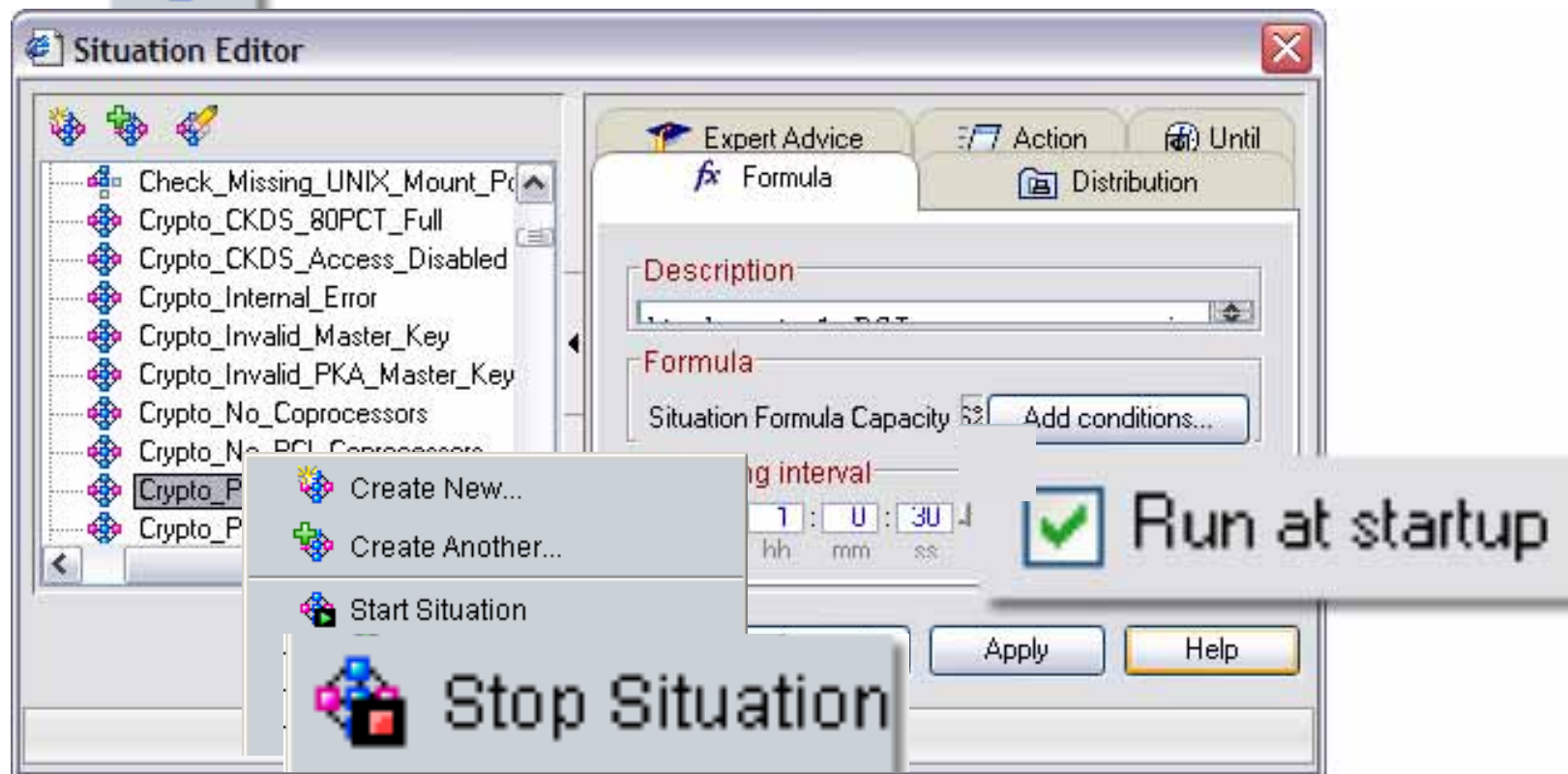
- See Autostarted Situations
- Identify unnecessary Situations
- Highlight situations with short intervals
  - Can impact performance



## Turn off unnecessary Situations



List all Situations defined



1. Stop situation
2. Uncheck **Run at startup**



## References

Narrated demos how to Create a cross LPAR workspace::

<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](http://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](#)





# Thanks for Your Participation





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