Top 10 OMEGAMON XE Tips for Tivoli Enterprise Portal

Ernie Gilman
IBM
August 3rd 2010
Session 7984
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
<table>
<thead>
<tr>
<th>TEP top 10 TIPs</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross LPAR Views</td>
<td>View all LPARs in one View</td>
</tr>
<tr>
<td>Creating a New Navigator View</td>
<td>Organize workspaces by user and problem</td>
</tr>
<tr>
<td>Cross Application Workspaces</td>
<td>Integrate many views into one</td>
</tr>
<tr>
<td>Eliminate Multiple pages</td>
<td>Compact simplified views</td>
</tr>
<tr>
<td>Filter Queries</td>
<td>Faster Views</td>
</tr>
<tr>
<td>Customizing Tables and Charts</td>
<td>Highlight only what you need to see</td>
</tr>
<tr>
<td>Situations</td>
<td>Alert only on problems that need action</td>
</tr>
<tr>
<td>Topology</td>
<td>Verify Installation fix levels and connectivity</td>
</tr>
<tr>
<td>Built-in Tutorials</td>
<td>TEP Online Education</td>
</tr>
<tr>
<td>Tuning and ITMSUPER</td>
<td>Tune OMEGAMON Infrastructure</td>
</tr>
</tbody>
</table>
## Integrated with the TEP

<table>
<thead>
<tr>
<th>Category</th>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>z/OS Health check</td>
<td>z/OS Management Console</td>
</tr>
<tr>
<td>z/OS &amp; USS</td>
<td>OMEGAMON XE on z/OS</td>
</tr>
<tr>
<td>NetView for z/OS</td>
<td>IBM Tivoli NetView for z/OS V5.4</td>
</tr>
<tr>
<td>Network</td>
<td>OMEGAMON XE for Mainframe Networks</td>
</tr>
<tr>
<td>DB2</td>
<td>OMEGAMON XE for DB2 PE/PM</td>
</tr>
<tr>
<td>CICS</td>
<td>OMEGAMON XE for CICS</td>
</tr>
<tr>
<td>IMS</td>
<td>OMEGAMON XE for IMS</td>
</tr>
<tr>
<td>Storage</td>
<td>OMEGAMON XE for Storage</td>
</tr>
<tr>
<td>WebSphere MQ</td>
<td>OMEGAMON XE for Messaging</td>
</tr>
<tr>
<td>WebSphere Appl Server</td>
<td>ITCAM for WAS</td>
</tr>
<tr>
<td>z/VM &amp; Linux on z</td>
<td>OMEGAMON XE on z/VM and Linux</td>
</tr>
<tr>
<td>Distributed Monitoring</td>
<td>IBM Tivoli Monitoring (ITM) &amp; ITCAM</td>
</tr>
<tr>
<td>Automation</td>
<td>SA for z/OS</td>
</tr>
<tr>
<td>DFSMS Audit</td>
<td>Advanced Audit for DFSMSHsm</td>
</tr>
<tr>
<td>Catalog Management</td>
<td>Advanced Catalog Management for z/OS</td>
</tr>
<tr>
<td>SMF trend analysis Reports</td>
<td>Tivoli Decision Support for z/OS</td>
</tr>
</tbody>
</table>
TEP - Terminology

Navigator View

Workspace
Leveraging the TEP - Agenda

1. Cross LPAR Views
2. Creating a New Navigator View
3. Cross Application Workspaces
4. Eliminate Multiple pages
5. Reduce Query data
6. Customizing Tables and Charts
7. Situations
8. Topology
9. Built-in tutorials
10. Tuning and ITMSUPER
    SHARE in Boston
Example: OMEGAMON XE on z/OS Default Physical drill down to see one LPAR at a time
Cross LPAR View – Example

Cross LPAR CPU Utilization

Cross LPAR CPU Utilization Table

<table>
<thead>
<tr>
<th>Managed System</th>
<th>RMF MVS CPU Percent</th>
<th>Average CPU Percent</th>
<th>RMF LPAR CPU Percent</th>
<th>Total TCB%</th>
<th>Total SRB%</th>
<th>Average IFA Percent</th>
<th>Average IFA on CP Percent</th>
<th>Average zIIP Percent</th>
<th>Average zIIP on CP Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEMOPLX: MVS:B: MVSSYS</td>
<td>3.8</td>
<td>0</td>
<td>3.8</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>DEMOPLX: MVSC: MVSSYS</td>
<td>3.5</td>
<td>0</td>
<td>3.5</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>DEMOPLX: MVSA: MVSSYS</td>
<td>10.2</td>
<td>7</td>
<td>10.3</td>
<td>74</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Cross LPAR CPU Utilization History

Hub Time: Sun, 02/22/2009 | Server Available | Cross LPAR CPU Utilization - ttweps.demopkg.ibm.com - MS51
New Navigator View

1. Edit Navigator Views

2. Create a New Navigator View

3. Populate new Navigator view
   Drag and drop
Choose attributes to graph

1. Select new Navigator view
2. Attribute to be graphed
3. Remember Query of Attribute to be graphed
Select type of graph

1. Select Graph type (drag and drop)

2. Assign Query

3. Assign Systems (default)
Assign Attribute to Graph

1. See Data to be Graphed

2. Assign What to Graph
Customize Graph

1. Enter Name of window “CPU Utilization”

2. Assign axis to display
Chart Customization

1. Select attributes
2. Stacked 3D bar chart
3. Title of View
4. Choose axis

Change bar chart into a stacked bar chart

- Title of View: TCP/IP Response Times > 10 Seconds
Select Workspace

TCP/IP Response Times > 10 Seconds

TCP/IP Connections

<table>
<thead>
<tr>
<th>Application Name</th>
<th>Foreign Socket</th>
<th>Response Time</th>
<th>Segments Retransmitted</th>
<th>Response Time Variance</th>
<th>Telnet Appl Name</th>
<th>Telnet LU Name</th>
<th>Total Segments Retransmitted</th>
<th>Perc Segm Retrans</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCCTH@12L</td>
<td>9.42.46.199:43314</td>
<td>16.00</td>
<td>6</td>
<td>7.00</td>
<td></td>
<td></td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>VCCTH@12L</td>
<td>9.42.9.118:1106</td>
<td>3.00</td>
<td>5</td>
<td>2.00</td>
<td></td>
<td></td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>VCCTH@12L</td>
<td>9.65.98.109:2864</td>
<td>203.00</td>
<td>5</td>
<td>78.00</td>
<td></td>
<td></td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>
Chart Customization – AutoRefresh

TCP/IP Connections

<table>
<thead>
<tr>
<th>Application Name</th>
<th>Foreign Socket</th>
<th>Response Time</th>
<th>Segments Retransmitted</th>
<th>Response Time Variance</th>
<th>Telnet Appl Name</th>
<th>Telnet LU Name</th>
<th>Total Segments Retransmitted</th>
<th>Perc Segm Retrans</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCCTH@B@L</td>
<td>9.42.46.199:34314</td>
<td>16.00</td>
<td>6</td>
<td>7.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VCCTH@B@L</td>
<td>9.42.9.118:1106</td>
<td>3.00</td>
<td>5</td>
<td>2.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VCCTH@B@L</td>
<td>9.65.98.109:2864</td>
<td>203.00</td>
<td>5</td>
<td>78.00</td>
<td></td>
<td></td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>VCCTH@B@L</td>
<td>9.42.14.16:2373</td>
<td>60.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>38</td>
<td></td>
</tr>
</tbody>
</table>
Recommended Workplaces

• OMEGAMON non z/OS
  • CPU Utilization 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
DB2 Thread Exceptions

Thread Exceptions across all systems

• Elapsed time
• Overlay CPU Time
z/VM and Linux

Linux CPU across all systems
- From z/VM’s view and Linux OS view
- Highest Process CPU
OMEGAMON for MFN

- FTPs Duration overlaid by bytes transmitted
- TCP/IP Connection response time overlaid by segments retransmitted
Leveraging the TEP - Agenda

1. Cross LPAR Views
2. Creating a New Navigator View
3. Cross Application Workspaces
4. Eliminate Multiple pages
5. Reduce Query data
6. Customizing Tables and Charts
7. Situations
8. Topology
9. Built-in tutorials
10. Tuning and ITMSUPER SHARE in Boston
Cross IP-STACK Example
View all aspects of one Applications

- OMEGAMON XE for CICS z/OS
- OMEGAMON XE on z/OS
- OMEGAMON XE for Mainframe Networks
- System Automation for z/OS
- Tivoli Decision Support for z/OS
Leveraging the TEP - Agenda

1. Cross LPAR Views
2. Creating a New Navigator View
3. Cross Application Workspaces
4. Eliminate Multiple pages
5. Reduce Query data
6. Customizing Tables and Charts
7. Situations
8. Topology
9. Built-in tutorials
10. Tuning and ITMSUPER

SHARE in Boston
Multiple Page Views

Multiple page tables
- Sorts only works one page at a time
- Limited performance savings
- If too many rows, then limit query with a filter
Increase number of rows

Multi-Page Chart

Properties

View-level Page Size
- Use default
- Return all rows
- Number of rows to return:

Increase Rows

Single Page Chart

Save Workspace
Changing Default Rows

Change `cnp.databus.pageSize` on TEP

- Number of rows to fetch in a single logical page
- Increase from default 100 rows
- See ITM Admin Guide SC32-9408
Leveraging the TEP - Agenda

1. Cross LPAR Views
2. Creating a New Navigator View
3. Cross Application Workspaces
4. Eliminate Multiple pages
5. Reduce Query data
6. Customizing Tables and Charts
7. Situations
8. Topology
9. Built-in tutorials
10. Tuning and ITMSUPER

SHARE in Boston
Limit data from agents

**Apply Filter at TEPS in Workspace Properties**

- LPAR
- Tivoli Enterprise Management Server (TEMS) HUB
- Distributed Server
  - Tivoli Enterprise Portal Server (TEPS)
- Desktop
  - Tivoli Enterprise Portal (TEP)

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

Filter in Workspace

Or Apply Filter at Agent with Custom Query

Agent

Filter in Query

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

10 Pages

80 Rows

1 Page

TEPS

Desktop
Add Filter to Copy of Query

1. Modify Copy of Query

2. Filter (Response Time > 10ms)
Limiting Queries – Save Workspace

10 Pages 1000 Rows

Query Filter (Response time > 10ms)

1 Page 80 Rows

Agent

80 Rows

Filter in Query

1,000 Rows Reduced to 80
Reduced overhead
Faster Response time.
Leveraging the TEP - Agenda

1. Cross LPAR Views
2. Creating a New Navigator View
3. Cross Application Workspaces
4. Eliminate Multiple pages
5. Reduce Query data
6. Customizing Tables and Charts
7. Topology
8. Situations
9. Built-in tutorials
10. Tuning and ITMSUPER
Situations and thresholds

View Thresholds can be used to highlight attributes of potential problems. Note: You will only see these if you are looking at the Table View.

Out of the box situations to proactively notify you.
Table Customization – Thresholds

![Diagram showing table customization and threshold settings.]

**Formula**

```plaintext
IF

(Response Time GE 100.00) => Critical

Segments Retransmitted GE 5 => Warning

--- Critical ---
--- Warning ---
```
Add View Thresholds

- Highlight tables with threshold
- Lock columns to make easier to read when scrolling
- Quick navigation to thresholds
- Sort by selecting title of any column
- Save workspace to remember settings
Overlays Helps Correlate

1. [Annotation]
2. [Annotation]
3. [Annotation]
4. [Annotation]

Available with ITM 6.2.1 or later
Leveraging the TEP - Agenda

1. Cross LPAR Views
2. Creating a New Navigator View
3. Cross Application Workspaces
4. Eliminate Multiple pages
5. Reduce Query data
6. Customizing Tables and Charts
7. Situations
8. Topology
9. Built-in tutorials
10. Tuning and ITMSUPER

SHARE in Boston
Locate Started Situations

1. List Situations by Application, one application at a time
2. See which Situation are automatically started

- Identify Unnecessary Situations
- In this example, Crypto is NOT installed
Turn off unnecessary Situations

List all Situations defined

1. Stop situation
2. Uncheck Run at startup
Leveraging the TEP - Agenda

1. Cross LPAR Views
2. Creating a New Navigator View
3. Cross Application Workspaces
4. Eliminate Multiple pages
5. Reduce Query data
6. Customizing Tables and Charts
7. Situations
8. Topology
9. Built-in tutorials
10. Tuning and ITMSUPER
Check configuration of Infrastructure

- See Tivoli Management Infrastructure
- TEMS, TEPS, Agents, TDW and Proxy
- Last Heartbeat, Version, IP Address
- CQ = TEPS
- EM = TEMS

### Table

<table>
<thead>
<tr>
<th>Status</th>
<th>Name</th>
<th>Resource</th>
<th>Product Code</th>
<th>IP Address</th>
<th>Version</th>
<th>Node</th>
<th>Host Info</th>
<th>Through No</th>
<th>Last Heartbeat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online</td>
<td>DEMO MV53</td>
<td>TEMS</td>
<td>EM</td>
<td>9.39.68.145</td>
<td>06.20.01</td>
<td>DEMO MV53</td>
<td>DEMO MV53</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Offline</td>
<td>TIVTEPS SY</td>
<td>Sum</td>
<td>SY</td>
<td>9.39.68.41</td>
<td>06.20.00</td>
<td>TIVTEPS</td>
<td>Win2003</td>
<td>DEMO MV53</td>
<td>01/28/09</td>
</tr>
<tr>
<td>Online</td>
<td>DEMO MV53</td>
<td>TEMS</td>
<td>EM</td>
<td>9.39.68.146</td>
<td>06.20.01</td>
<td>DEMO MV53</td>
<td>DEMO MV53</td>
<td></td>
<td>01/28/09</td>
</tr>
<tr>
<td>Online</td>
<td>DEMO MV53</td>
<td>TEMS</td>
<td>EM</td>
<td>9.39.68.147</td>
<td>06.20.01</td>
<td>DEMO MV53</td>
<td>DEMO MV53</td>
<td></td>
<td>01/28/09</td>
</tr>
<tr>
<td>Online</td>
<td>TEPS</td>
<td>TEPS</td>
<td>CQ</td>
<td>9.39.68.41</td>
<td>06.20.00</td>
<td>DEMO MV53</td>
<td>DEMO MV53</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Check configuration and versions

- Last Heartbeat
- Version
- IP Address
- N3 OMEGAMON for Mainframe Networks
- M5 OMEGAMON ON z/OS
- EM TEMS
- V6.x for ITM and Infrastructure
- V4.x for OMEGAMON Agents

+ Drill down
Leveraging the TEP - Agenda

1. Cross LPAR Views
2. Creating a New Navigator View
3. Cross Application Workspaces
4. Eliminate Multiple pages
5. Reduce Query data
6. Customizing Tables and Charts
7. Situations
8. Topology
9. *Built-in tutorials*
10. Tuning and ITMSUPER
Welcome to the Tivoli Enterprise Portal tour. In under 10 minutes this tour introduces you to some of the major features:

- Getting started
- Tivoli Enterprise Portal window
- Using the Navigator
- Tutorial: Defining a workspace
- Linking to a workspace
- Responding to events

Tutorial: Defining a workspace

This tutorial gives you hands on practice defining a workspace. In the following exercises you will add new views to an undefined workspace, tailor them with the Properties editor, save the workspace, and, finally, edit the workspace properties.
Leveraging the TEP - Agenda

1. Cross LPAR Views
2. Creating a New Navigator View
3. Cross Application Workspaces
4. Eliminate Multiple pages
5. Reduce Query data
6. Customizing Tables and Charts
7. Situations
8. Topology
9. Built-in tutorials
10. Tuning and ITMSUPER
## Tuning TEP Summary

<table>
<thead>
<tr>
<th>Problem and symptom</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No or missing data on workspaces</strong></td>
<td></td>
</tr>
</tbody>
</table>
| Too Many Query targets can result in an error  
TEPS variable KFW_REPORT_NODE_LIMIT Defaults to 200 | Use group system lists  
Such as dynamic ones:  
*MVS_SYSTEM, *MVS_CICS, *MVS*DB2 |
| Mismatch of application support files | Run ITMSUPER to isolate mismatch |
| Default filter within query is hiding data  
Look at Query tab on view properties | Change query filter |
| No response from query to one of the targets  
Default query timeout is 10 minutes | Code timeout on query for view  
See Technote:  
| **Workspaces are slow** | |
| Too many rows being return | Filter with custom query to reduce number of rows |
| Multiple windows in workspace | Use common query for several windows in workspaces  
All queries to the same agent run serially. But to different agents they run asynchronously. |
| Low Java cache  
You may see Heap dumps on desktop | Increase java cache size  
See Appendix C in ITM admin Guide |
| Top 10 lists and sorts in Query for many rows  
Select advance button on query editor | Avoid query sorts, use fixed thresholds  
Then Sort within workspace view |
Here is an awesome tool that all our customers should have to help tune and manage OMEGAMON and ITM.

In addition to identifying performance issues caused by things like too many situations, TEPS Analysis will help identify common problems such as application seed files being out of sync between the HUB and the TEPS.

The tool is really simple to run since there is nothing to install. Just unzip it someplace like the TEPS server and it will prompt you.

This can be downloaded from OPAL. Just search on ITMSUPER at: http://www-01.ibm.com/software/brandcatalog/portal/opal
**ITM Super Tool –**

See CPU utilization

<table>
<thead>
<tr>
<th>Server_Name</th>
<th>Job/Step</th>
<th>CPU_Time/Elapsed Seconds</th>
<th>Life CPU %</th>
<th>TCB_Time Seconds</th>
<th>CPU_Percent</th>
<th>TCB_Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>PR02:MVSSYS</td>
<td>DIVPDBM1/IEFPROC</td>
<td>28195/194682</td>
<td>14.4%</td>
<td>2244.77</td>
<td>28.2</td>
<td>0.0</td>
</tr>
<tr>
<td>PR02:MVSSYS</td>
<td>TCPIP/TCPIP</td>
<td>11622/210599</td>
<td>5.5%</td>
<td>406.23</td>
<td>32.6</td>
<td>0.4</td>
</tr>
<tr>
<td>PR02:MVSSYS</td>
<td>DIVPDIST/IEFPROC</td>
<td>42554/194674</td>
<td>21.8%</td>
<td>20341.77</td>
<td>56.5</td>
<td>38.2</td>
</tr>
<tr>
<td>TS01:MVSSYS</td>
<td>CANSCN/CNDL</td>
<td>14402/180774</td>
<td>7.9%</td>
<td>14332.28</td>
<td>10.4</td>
<td>10.4</td>
</tr>
<tr>
<td>TS02:MVSSYS</td>
<td>CATALOG/IEFPROC</td>
<td>33229/210600</td>
<td>15.7%</td>
<td>32524.72</td>
<td>36.0</td>
<td>35.6</td>
</tr>
<tr>
<td>TS02:MVSSYS</td>
<td>VLF/VLF</td>
<td>9810/210600</td>
<td>4.6%</td>
<td>9809.37</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>TS02:MVSSYS</td>
<td>HSM Aux4/SM</td>
<td>20162/195016</td>
<td>10.3%</td>
<td>13945.21</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>TS02:MVSSYS</td>
<td>HSM Aux1/SM</td>
<td>32377/195016</td>
<td>16.6%</td>
<td>22776.58</td>
<td>8.6</td>
<td>5.6</td>
</tr>
<tr>
<td>TS02:MVSSYS</td>
<td>HSM Aux3/SM</td>
<td>18107/195016</td>
<td>9.2%</td>
<td>12468.89</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>TS02:MVSSYS</td>
<td>HSM Aux2/SM</td>
<td>21447/195016</td>
<td>10.9%</td>
<td>14155.91</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>TS02:MVSSYS</td>
<td>SAMS/SAMS</td>
<td>11793/210600</td>
<td>5.6%</td>
<td>11328.11</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>TS03:MVSSYS</td>
<td>CANSCN/CNDL</td>
<td>17439/191884</td>
<td>9%</td>
<td>17366.79</td>
<td>12.1</td>
<td>12.1</td>
</tr>
</tbody>
</table>

Situation overhead can be reduced by increasing interval or turning off

<table>
<thead>
<tr>
<th>Situation</th>
<th>Table</th>
<th>Rows</th>
<th>Columns</th>
<th>Sample Cost</th>
<th>Interval</th>
<th>Rows Processed Every hour</th>
<th>Situation Cost/hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crypto_CKDS_Access_Disabled</td>
<td>KMS.ICSF</td>
<td>1</td>
<td>44</td>
<td>0.01</td>
<td>0030</td>
<td>120</td>
<td>1.2</td>
</tr>
<tr>
<td>Crypto_CKDS_80PCT_Full</td>
<td>KMS.ICSF</td>
<td>1</td>
<td>44</td>
<td>0.01</td>
<td>0030</td>
<td>120</td>
<td>1.2</td>
</tr>
<tr>
<td>Crypto_Internal_Error</td>
<td>KMS.ICSF</td>
<td>1</td>
<td>44</td>
<td>0.01</td>
<td>0030</td>
<td>120</td>
<td>1.2</td>
</tr>
<tr>
<td>Crypto_Invalid_Master_Key</td>
<td>KMS.ICSF</td>
<td>1</td>
<td>44</td>
<td>0.01</td>
<td>0030</td>
<td>120</td>
<td>1.2</td>
</tr>
<tr>
<td>Crypto_Invalid_PKA_Master_Keys</td>
<td>KMS.ICSF</td>
<td>1</td>
<td>44</td>
<td>0.09</td>
<td>0030</td>
<td>120</td>
<td>10.8</td>
</tr>
<tr>
<td>Crypto_No_Coprocessors</td>
<td>KMS.ICSF</td>
<td>1</td>
<td>44</td>
<td>0.01</td>
<td>0030</td>
<td>120</td>
<td>1.2</td>
</tr>
</tbody>
</table>

Total cost of running the situations at the agent = 27 in seconds/hour, for rows processed = 42500 rows per hour
This works out to be approximately 0.75 % Utilization
ITM Super Tool –

1. This TEPS tool will obtain applications seeded in TEPS and applications seeded at HUB and compare them. It will highlight the discrepancies.
   a. Applications at HUB but not in TEPS are highlighted in **red**.
   b. Applications at TEPS but not at HUB are highlighted in **yellow**.

<table>
<thead>
<tr>
<th>Application</th>
<th>Application ID</th>
<th>Version</th>
<th>TEPS File Date</th>
<th>TEPS Seed Date</th>
<th>HUB Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABA</td>
<td>ABA</td>
<td>06.01.00</td>
<td>Fri Sep 21 11:22:42 PDT 2007</td>
<td>Thu Oct 4 10:12:33 PDT 2007</td>
<td>10/07/05 15:54:26</td>
</tr>
<tr>
<td>ABH</td>
<td>ABH</td>
<td>06.01.00</td>
<td>Fri Sep 21 11:22:44 PDT 2007</td>
<td>Thu Oct 4 10:12:34 PDT 2007</td>
<td>10/07/05 15:54:26</td>
</tr>
<tr>
<td>AMA</td>
<td>AMA</td>
<td>06.01.00</td>
<td>Fri Sep 21 11:22:44 PDT 2007</td>
<td>Thu Oct 4 10:12:35 PDT 2007</td>
<td>10/07/05 15:54:26</td>
</tr>
<tr>
<td>AMB</td>
<td>AMB</td>
<td>06.01.00</td>
<td>Fri Sep 21 11:22:44 PDT 2007</td>
<td>Thu Oct 4 10:12:36 PDT 2007</td>
<td>10/07/05 15:54:26</td>
</tr>
<tr>
<td>AMD</td>
<td>AMD</td>
<td>06.01.00</td>
<td>Fri Sep 21 11:22:44 PDT 2007</td>
<td>Thu Oct 4 10:12:36 PDT 2007</td>
<td>10/07/05 15:54:26</td>
</tr>
<tr>
<td>AMN</td>
<td>AMN</td>
<td>06.01.00</td>
<td>Fri Sep 21 11:22:44 PDT 2007</td>
<td>Thu Oct 4 10:12:36 PDT 2007</td>
<td>10/07/05 15:54:26</td>
</tr>
<tr>
<td>IEX01</td>
<td>Missing at TEPS</td>
<td></td>
<td></td>
<td></td>
<td>05/21/06 21:09:49</td>
</tr>
<tr>
<td>IEX09</td>
<td>Missing at TEPS</td>
<td></td>
<td></td>
<td></td>
<td>12/01/07 10:42:52</td>
</tr>
<tr>
<td>INT00</td>
<td>INT</td>
<td>06.00.00</td>
<td>**</td>
<td></td>
<td>03/28/08 20:25:50</td>
</tr>
<tr>
<td>IQS</td>
<td>IQS</td>
<td>06.01.00</td>
<td>Fri Sep 21 11:22:56 PDT 2007</td>
<td>Thu Oct 4 10:12:58 PDT 2007</td>
<td>10/07/05 15:54:26</td>
</tr>
<tr>
<td>IQY</td>
<td>IQY</td>
<td>06.01.00</td>
<td>Fri Sep 21 11:22:56 PDT 2007</td>
<td>Thu Oct 4 10:12:59 PDT 2007</td>
<td>10/07/05 15:54:26</td>
</tr>
<tr>
<td>IQZ</td>
<td>IQZ</td>
<td>06.01.00</td>
<td>Fri Sep 21 11:22:58 PDT 2007</td>
<td>Thu Oct 4 10:13:00 PDT 2007</td>
<td>10/07/05 15:54:26</td>
</tr>
<tr>
<td>IUD</td>
<td>IUD</td>
<td>06.01.00</td>
<td>Fri Sep 21 11:22:58 PDT 2007</td>
<td>Thu Oct 4 10:13:01 PDT 2007</td>
<td>10/07/05 15:54:26</td>
</tr>
<tr>
<td>IUI</td>
<td>IUI</td>
<td>06.01.00</td>
<td>Fri Sep 21 11:22:58 PDT 2007</td>
<td>Thu Oct 4 10:13:03 PDT 2007</td>
<td>10/07/05 15:54:26</td>
</tr>
<tr>
<td>IVG</td>
<td>IVG</td>
<td>06.01.00</td>
<td>Fri Sep 21 11:22:58 PDT 2007</td>
<td>Thu Oct 4 10:13:04 PDT 2007</td>
<td>10/07/05 15:54:26</td>
</tr>
</tbody>
</table>
### Summary

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

<table>
<thead>
<tr>
<th>TEP Config Tips If HUB is on z/OS</th>
<th>If Integrated Cryptographic Service Facility (ICSF) is not installed or configured, Then From Manage Tivoli Enterprise Monitoring Services right-click TEPS and select Advanced &gt; Edit ENV File Insert USE_EGG1_FLAG=1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add application support to the HUB TEMS:</td>
<td>Add application support to the HUB TEMS: From Manage Tivoli Enterprise Monitoring Services window, right-click TEPS. Select the Actions and select Advanced &gt; Add application support to the TEMS</td>
</tr>
<tr>
<td>Running ITM on Linux on z</td>
<td>Supports 64 bit on Linux on z with ITM 6.2.1 or later</td>
</tr>
<tr>
<td>New Tivoli on z ServerPac on Shopz</td>
<td>Preinstalled datasets with Latest Releases and maintenance</td>
</tr>
<tr>
<td>How to downloading ITM code from ShopzSeries</td>
<td>Video on how to download software on ShopzSeries To order the latest ITM 6.2.2 code for download you should order: 5698-A79 IBM Tivoli Management Services on z/OS V6.2.2 (5698-S53)</td>
</tr>
</tbody>
</table>
## Product codes


<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITM OMEGAMON Infrastructure</td>
<td>cj Tivoli Enterprise Portal Desktop Client&lt;br&gt;cw Tivoli Enterprise Portal Browser Client&lt;br&gt;cq Tivoli Enterprise Portal Server&lt;br&gt;EM Tivoli Enterprise Monitoring Server&lt;br&gt;sy Summarization and Pruning Agent&lt;br&gt;nt Monitoring Agent for Windows OS</td>
</tr>
<tr>
<td>DB2</td>
<td>d5 OMEGAMON XE for PE and PM on z/OS</td>
</tr>
<tr>
<td>CICS</td>
<td>c5 OMEGAMON XE for CICS on z/OS&lt;br&gt;cp OMEGAMON XE for CICSPlex&lt;br&gt;gw OMEGAMON XE for CICS TG on z/OS</td>
</tr>
<tr>
<td>IMS</td>
<td>ip OMEGAMON XE for IMS on z/OS&lt;br&gt;i2 OMEGAMON II for IMS</td>
</tr>
<tr>
<td>z/OS</td>
<td>m5 OMEGAMON XE on z/OS&lt;br&gt;m2 OMEGAMON II for MVS&lt;br&gt;h1 OMEGAMON z/OS Management Console</td>
</tr>
<tr>
<td>SOA &amp; WAS</td>
<td>yn ITCAM for WebSphere&lt;br&gt;d4 ITCAM for SOA</td>
</tr>
<tr>
<td>MQ</td>
<td>mq WebSphere MQ Monitoring Agent&lt;br&gt;mc WebSphere MQ Configuration Agent</td>
</tr>
<tr>
<td>MFN</td>
<td>n3 OMEGAMON XE for Mainframe Networks&lt;br&gt;on OMEGAMON II for Mainframe Network</td>
</tr>
<tr>
<td>zNetView zSA</td>
<td>na IBM Tivoli NetView for z/OS Enterprise Management Agent&lt;br&gt;ah System Automation for z/OS</td>
</tr>
<tr>
<td>Storage</td>
<td>s3 OMEGAMON XE for Storage on z/OS&lt;br&gt;df OMEGAMON II for SMS&lt;br&gt;rk IBM Tivoli Automated Tape Allocation Manager&lt;br(rv IBM Tivoli Advanced Backup and Recovery for z/OS&lt;br&gt;rw IBM Tivoli Tape Optimizer for z/OS</td>
</tr>
<tr>
<td>z/VM Linux</td>
<td>vl OMEGAMON XE on z/VM and Linux&lt;br&gt;lz Monitoring Agent for Linux OS</td>
</tr>
</tbody>
</table>
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.
References:

Narrated demos how to Create a cross LPAR workspace:


NOTE: Everyone should bookmark this page! Search on:

Recommended Maintenance Service Levels for OMEGAMON XE products on ITM V6.x

CCR2 OMEGAMON Tuning:


- 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