IBM Software Group

OMEGAMON XE For IMS Power User Tips And Techniques

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Tivoli software

e business on demand.

Agenda – OMEGAMON XE For IMS

- OMEGAMON - A Choice Of Capabilities And Technologies
- OMEGAMON XE For IMS Capabilities
- Power User Techniques For 3270 Interface
- Power User Techniques For Tivoli Enterprise Portal

What Is A Power User?

- As defined by Webopedia.Com
  - “A sophisticated user of personal computers. A power user is typically someone who has considerable experience with computers and utilizes the most advanced features of applications”
- Ed Woods’ definition
  - A user of computer technology who takes that technology and customizes or crafts it to more fully fill their needs

OMEGAMON XE For IMS
Real Time Components And Facilities

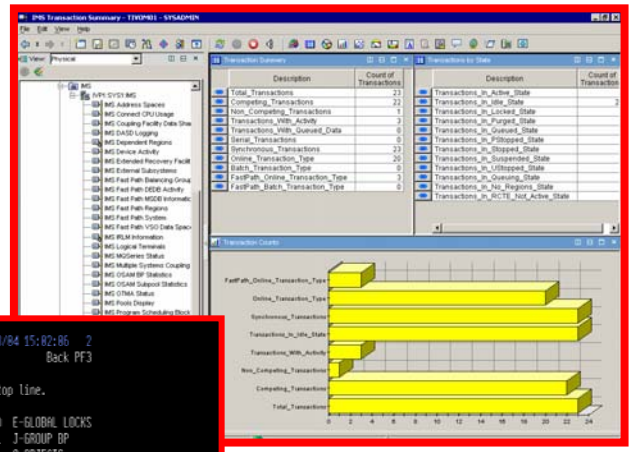
- ***Real Time Monitor***
  - *Subsystems, regions, resources, pools, DBs, Fast path*
  - *IMS Connect, OTMA*
- ***Response Time Analysis (RTA)***
  - *Transaction Response time by user defined groups*
- ***Bottleneck Analysis***
  - *Workload performance and task analysis*
- ***Operator Assist & Integrated Console Facility***
  - *Consolidation of IMS MTO consoles*
- ***Online TRF***
- ***Trace Facilities***
- ***Exceptions & Alerts***
- ***Plex level information***
  - *Integrated alert/automation*
  - *N-way, MSC*

OMEGAMON XE For IMS
Historical Facilities

- ***EPILOG Historical***
  - Historical analysis of transaction response, bottlenecks and IMS resources
  - Stored in VSAM Epilog Data Store (EDS) by group and time interval
- ***TRF Historical***
  - Detailed transaction & database data – individual transactions
  - Suitable for performance analysis & chargeback
- ***XE Historical***
  - Snapshot historical

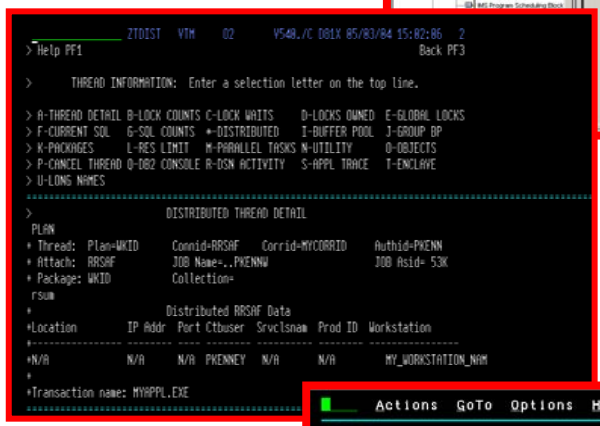
OMEGAMON XE For IMS
Choice Of Interfaces – Unique Capabilities

- **OMEGAMON XE GUI Interface**
  - Java client or web browser – Tivoli Portal
  - Real time and historical
  - Automation & alerts
  - Plex level information (CF, n-way)

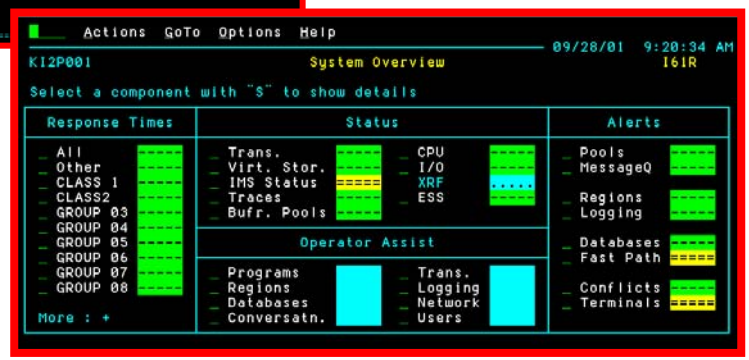


OMEGAMON Classic

- 3270 Interface command interface
- Real Time & Historical
- RTA, Dexan
- Exceptions



- **OMEGAMON CUA**
  - 3270 interface
  - ICF & Operator Assist run in CUA
  - Different views from Classic
  - Warning & Critical exception alerts



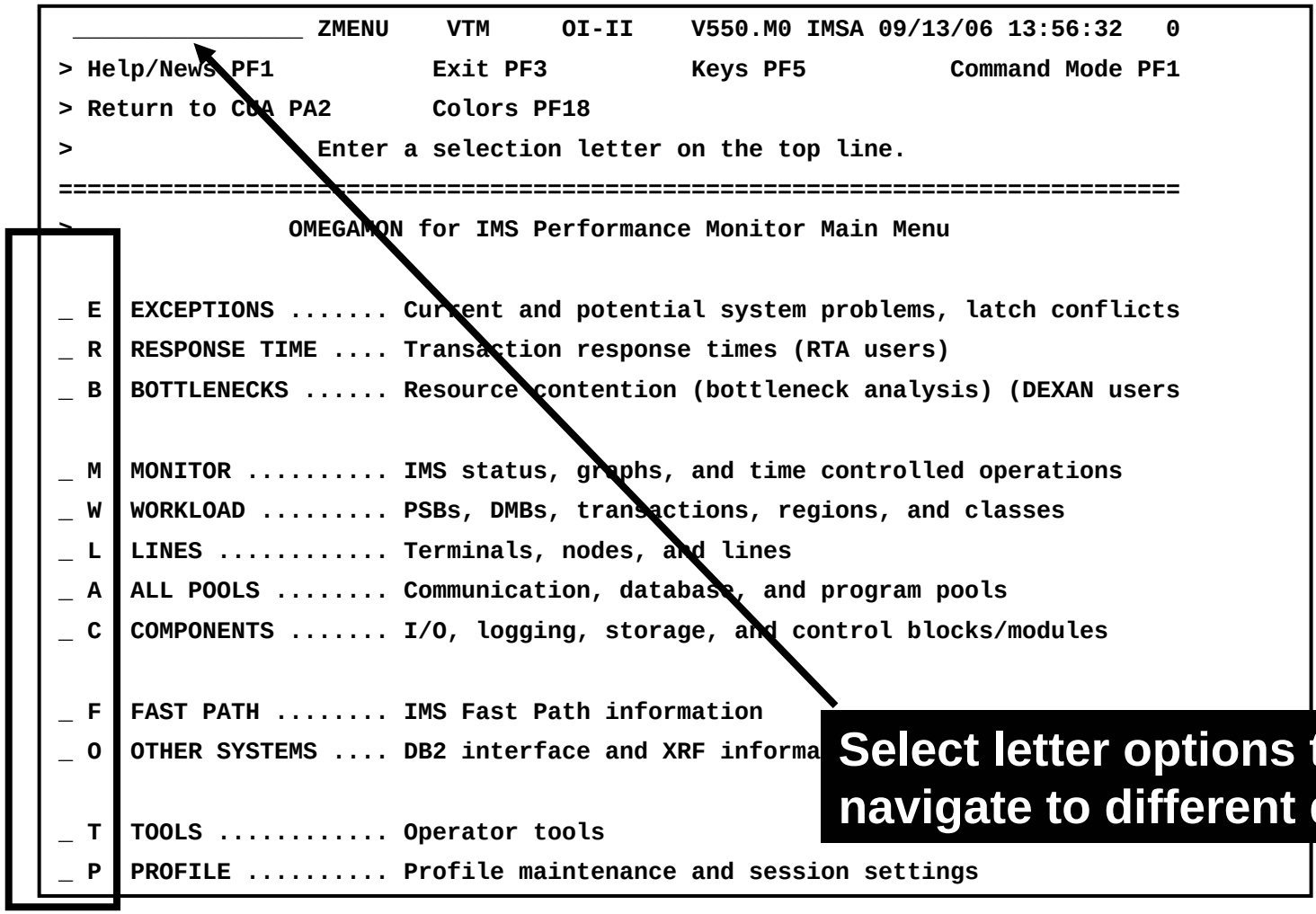
OMEGAMON XE For IMS
GUI Interface Versus 3270 – Strengths

- Tivoli Enterprise Portal (TEP) GUI Interface strengths and capabilities
  - Customizable high level overview of all IMS activity
    - Integrate information from a variety of sources
  - Data sharing performance information
  - The most flexible and customizable for alerts, automation, and corrective actions
- 3270 (Classic & CUA) Interface strengths and capabilities
  - Detailed analysis
    - Region and subsystem details
  - Display flexibility and granularity
  - Operator assist and I/CF facility

OMEGAMON XE For IMS
GUI Interface Versus 3270 – When To Use

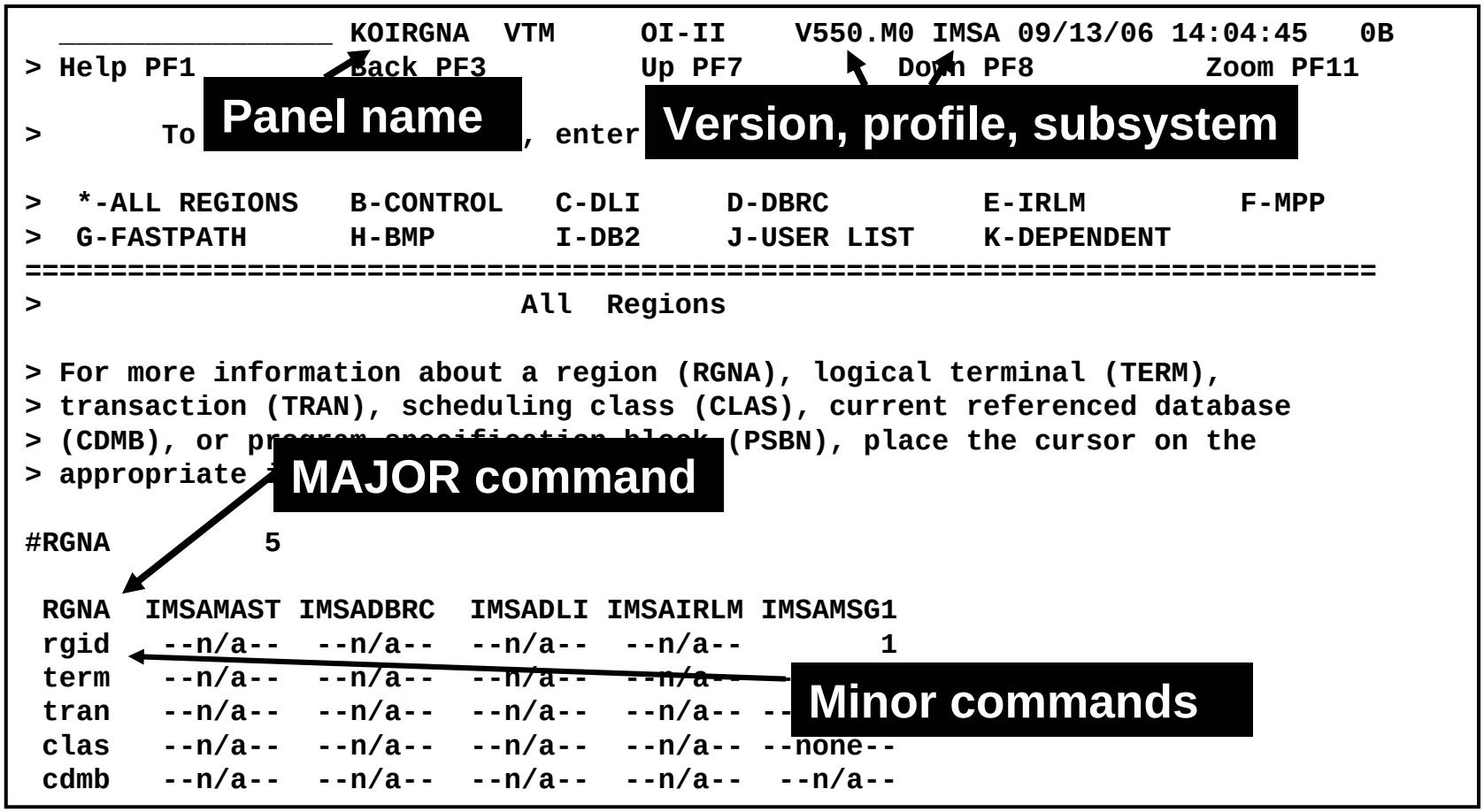
- Tivoli Enterprise Portal (TEP) GUI Interface
  - Correlation and high level analysis
  - Problem identification, notification, and isolation
  - Robust correlated alert generation
  - Integrated automation with corrective actions
- 3270 Classic and CUA Interface
  - Works best for deep dive detailed analysis
  - Command driven with the ability to build custom screen spaces
  - Screen logging and automated screen facility options
  - Classic alerts may drive actions and automation (with SA z/OS automation)

OMEGAMON IMS
Classic 3270 Interface Main Menu



Select letter options to navigate to different displays

Classic Interface
Major & minor commands



Classic Interface Examples

- Detailed IMS subsystem, transaction, and region analysis is a common usage of the Classic interface
  - Example - RGNA major commands with various minors
- Classic interface includes easy to use screen logging capabilities
  - Have screen spaces logged to OMEGAMON sysout for later review
- Classic interface includes timer and screen automation capabilities
  - Execute classic screen spaces at certain times of day (TSF)
  - Execute classic screen spaces based upon classic exceptions (ASF)

Creating A Custom Region Overview Screen

The RGNA major command shows all the regions in the IMS subsystem.

Options could include using RGND to just show dependent regions, etc.

```
                                                          /06 14:35:00  0B
>
>                This is a customized region screen
================================================================================
 RGNA   IMSAMAST IMSADBRC   IMSADLI IMSAIRLM IMSAMSG1 IMSAMSG2
 clas    --n/a--  --n/a--  --n/a--  --n/a-- --none--  --none--
 cpu       13.51      .12      .12      .07      .05      .10
 ocup    --n/a--  --n/a--  --n/a--  --n/a--     .00%     .01%
 tran    --n/a--  --n/a--  --n/a--  --n/a-- --none-- --none--
 term    --n/a--  --n/a--  --n/a--  --n/a--  --n/a--  --n/a—
.rc
```

There are 105 minors for the RGNA major command. Creating a custom region screen allows the user to create a targeted region screen, and include more relevant information on that screen.

Save The Customized Screen Space

```
/SAVE EDREGN___   EDREGN  VTM     OI-II    V550.M0 IMSA 09/13/06 14:35:00  0B
>
>                This is a customized region screen
================================================================================
 RGNA  IMSAMAST IMSADBRC  IMSADLI IMSAIRLM IMSAMSG1 IMSAMSG2
 clas   --n/a--  --n/a--  --n/a--  --n/a-- --none--  --none--
 cpu      13.51      .12      .12      .07      .05      .10
 ocup   --n/a--  --n/a--  --n/a--  --n/a--     .00%     .01%
 tran   --n/a--  --n/a--  --n/a--  --n/a-- --none-- --none--
 term   --n/a--  --n/a--  --n/a--  --n/a--  --n/a--
.rc
```

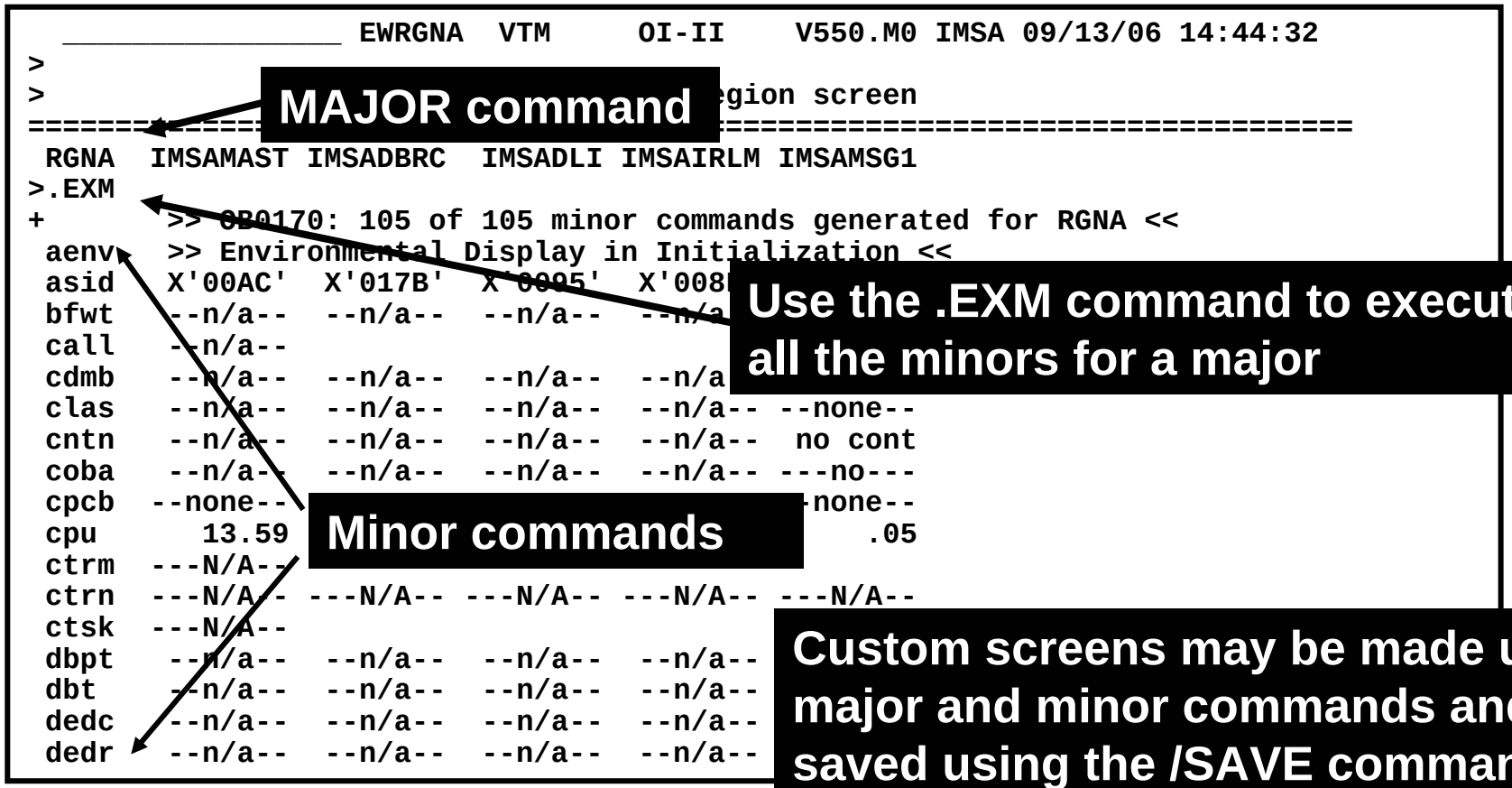
Use the /SAVE command to save the custom screen space.

Use the /REP command to replace an existing screen.

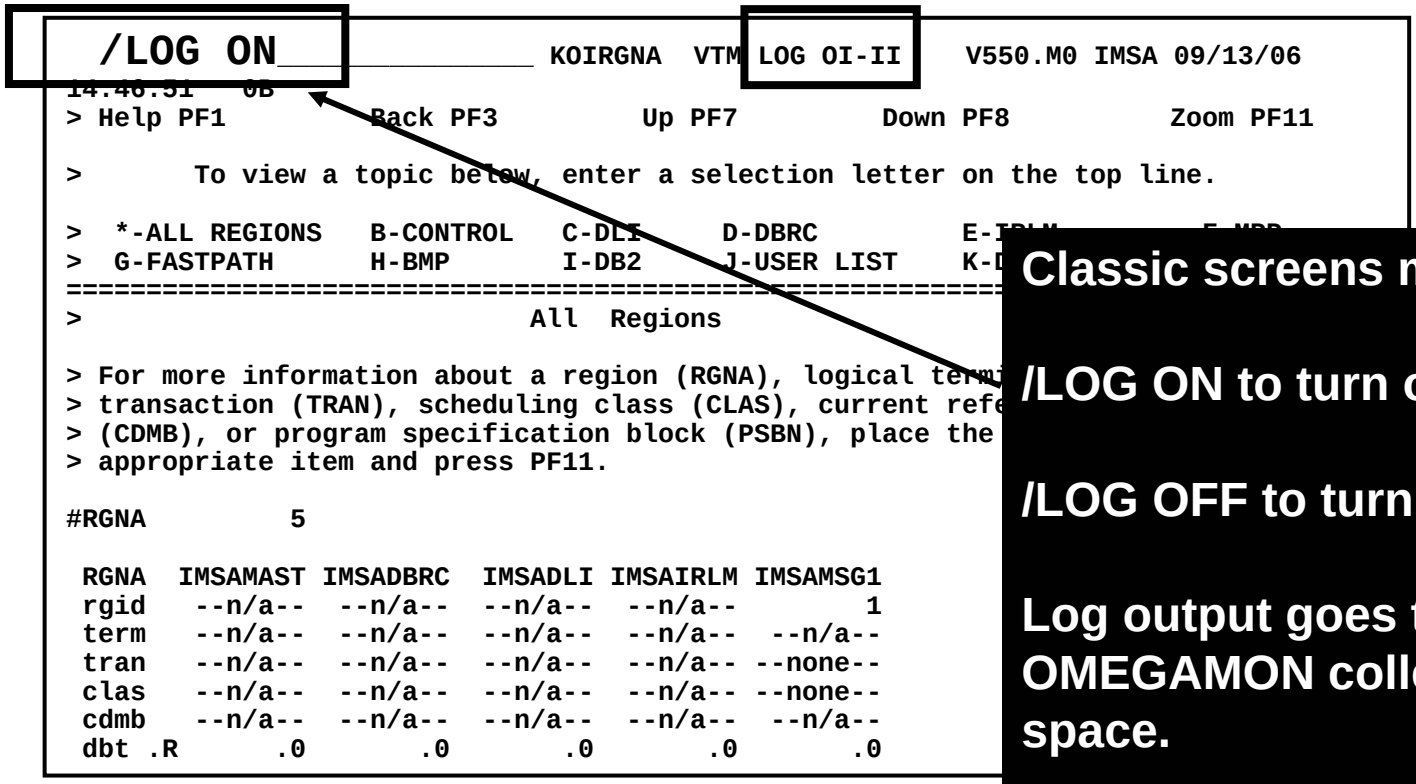
To invoke the screen enter the screen name on the command line.

Make screens for various filter options needed.

Making Custom Screen Spaces



Screen Logging



Classic screens may be logged.

/LOG ON to turn on

/LOG OFF to turn off

Log output goes to sysout on the OMEGAMON collector address space.

Useful to snapshot some screens, or screens over a period of time.

Executing A Screen Space Based Upon A Timer TSF Command – Timed Screen Facility

```
_________________ KOIRGNA  VTM LOG OI-II    V550.M0 IMSA 09/13/06 14:49:53


 .TSF01  TIME=1100  SS=EDREGN    DAY=DAILY
```

.TSF01 command to enter a timer. Enter the time and the screen to execute.

```
  _________________ KOIRGNA  VTM LOG OI-II    V550.M0 IMSA 09/13/06 14:49:53

.TSF00
+        1   TIME=1100  SS=EDREGN    DAY=DAILY
+        2   TIME=0000  SS=*NONE*    DAY=DAILY
+        3   TIME=0000  SS=*NONE*    DAY=DAILY
+        4   TIME=0000  SS=*NONE*    DAY=DAILY
+        5   TIME=0000  SS=*NONE*    DAY=DAILY
```

.TSF00 command to list all the current timers that have been set.

TSF Requirements

- For TSF to operate the following is needed
  - An active OMEGAMON classic session
  - OMEGAMON running in auto update mode - /AUP ON
  - TSF has been set to ON - /TSF ON
- To log the screens execute by timer the Log needs to be set to ON

```
  _________________ KOIOPEA  VTM LOG OI-II    V550.M0 IMSA 09/13/06 14:51:57   0B
> Help PF1                        Back PF3                        Save Profile PF22
================================================================================
>                              SET DISPLAY OPTIONS

> To change the value of an option, type the new value over the current one.
> Press ENTER to record the change.

 OPTN
:       ASF           = ON           BELL          = ON
:       BELLINT       =    60.00     DATEFORMAT    = USA
:       FIRSTSCREEN   = KOINITZZ     LOG           = ON
:       MINORCASE     = LOWER        SCREENCASE    = MIX
:       SCROLL        = PAGE         TSF           = ON
:       XLF           = ON           ZEROS         = ON

================================================================================
```

Note Log is set to ON and TSF is set to ON.

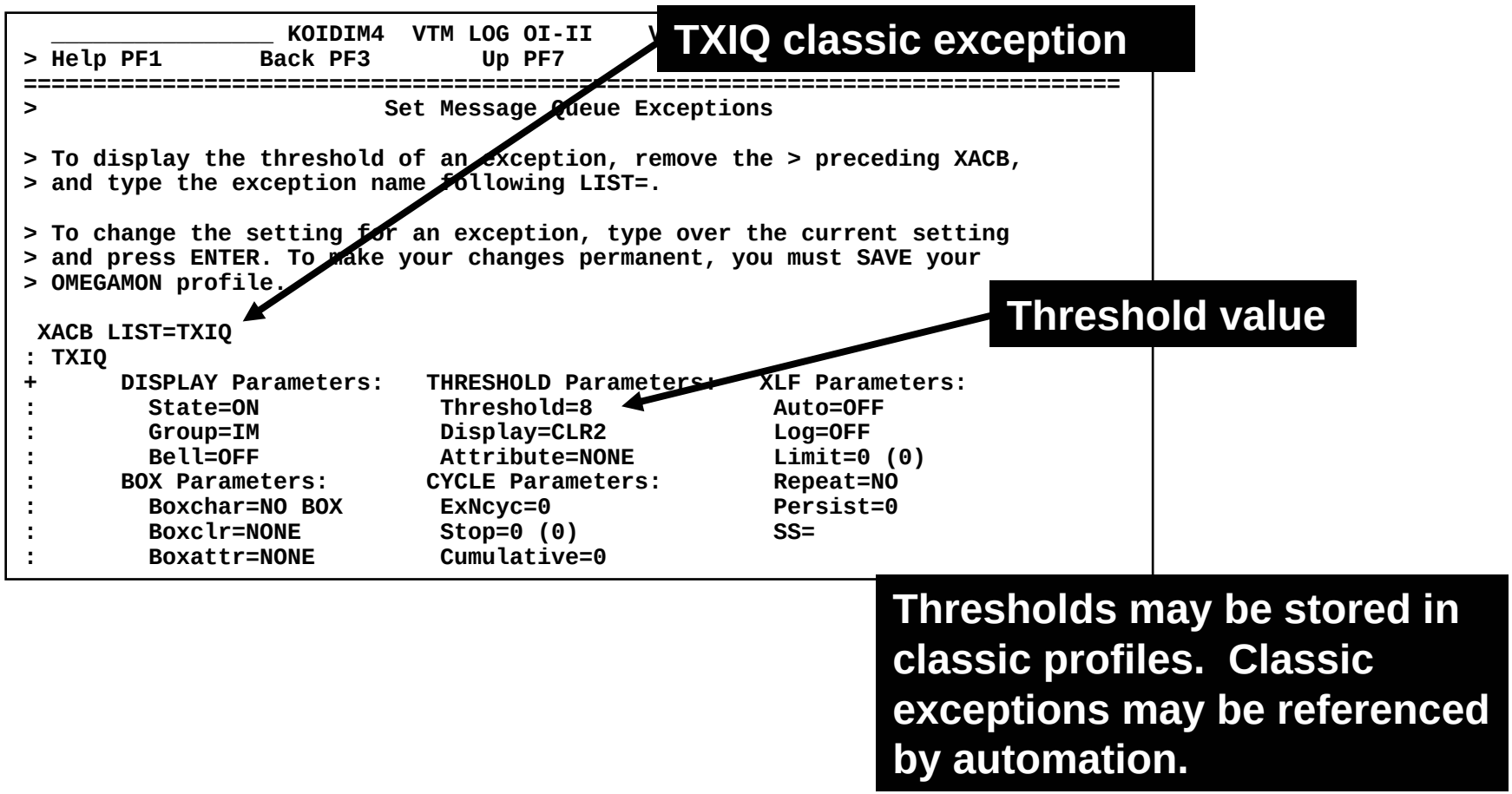
A Note About Using Auto-update

```
  _________________ KOIOPEB  VTM LOG OI-II    V550.M0 IMSA 09/13/06 14:56:30   0B

> Help PF1                        Back PF3                          Save Profile PF22
================================================================================
>                        SET CONTROL FUNCTION OPTIONS

> To change the value of an option, type the new value over the current one.
> Press ENTER to record the change.

 .SET
:       FGOLIMIT     =       64     FGOLOOP      = OFF
:       GDEVUCBS     =      200     INTERVAL     =     5.00
:       IODELAY      =        5     LOOPCOUNT    =    15000
:       LOOPTIME     =    10.00     PAGELIMIT    =      390
:       PEEKSIZE     =    16384     STATUSMODE   = OFF
:       OCMDMASTER   = ON

================================================================================
```

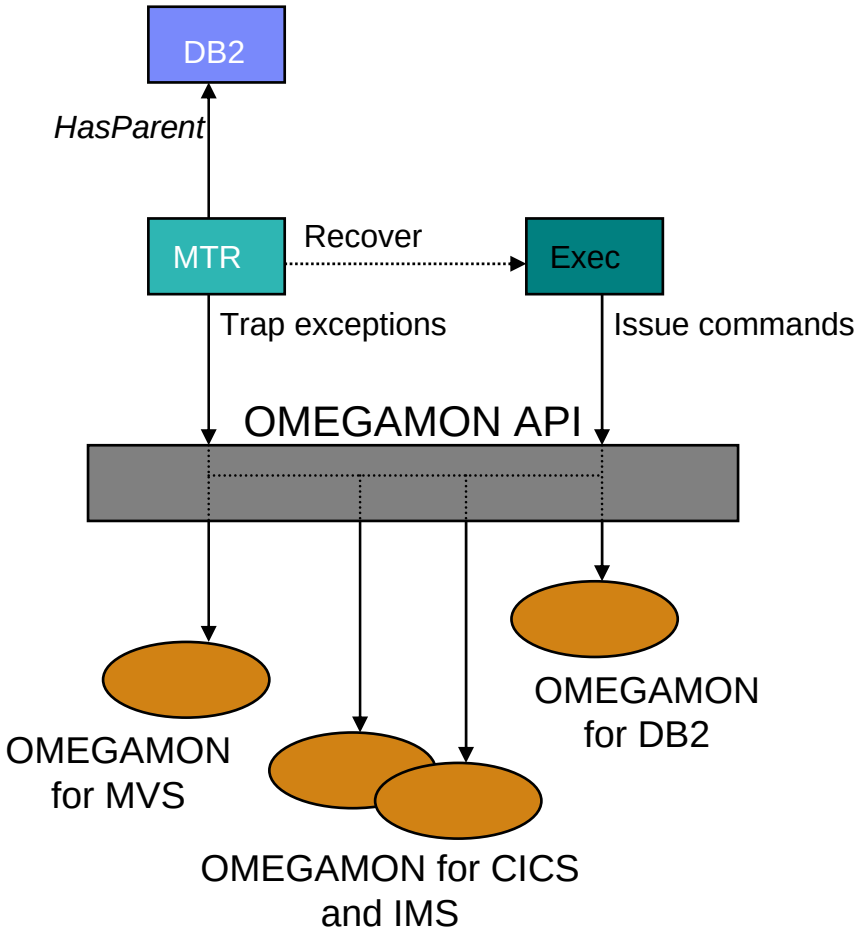
The default auto update interval in Classic interface is 5 seconds.

RECOMMENDATION – Set the interval to a higher value – 30 or 60 seconds.

Classic Exceptions May Be Used To Interface With SA for z/OS Automation



OMEGAMON And SA Interoperation



- **Use of performance and availability information for application automation**
  - **More facts, more accurate decisions**
  - **Sources: OMEGAMON MVS, DB2, CICS, IMS**
- **Provides API to communicate with OMEGAMON monitors to**
  - **Obtains and filters installation-defined exceptional conditions**
  - **Sends commands to OMEGAMON, for example to respond to such conditions**
- **Provides exception monitor based on the Monitor Resource concept**
  - **Monitors „interesting“ set of exceptions**
  - **Sets application health state based on existence of such exceptions**
  - **Provides means to react and resolve exceptional conditions**

Tivoli Enterprise Portal (TEP) Interface Examples

- Monitoring view customization and flexibility
  - Create monitoring views specific to technical requirements
- Correlation and high level analysis
  - The ability to monitor form and integrated high level view
- Problem identification, notification, and isolation
  - Robust correlated alert generation
  - Ability to incorporate a broad array of information into an alert
- Flexible linking and cross navigation

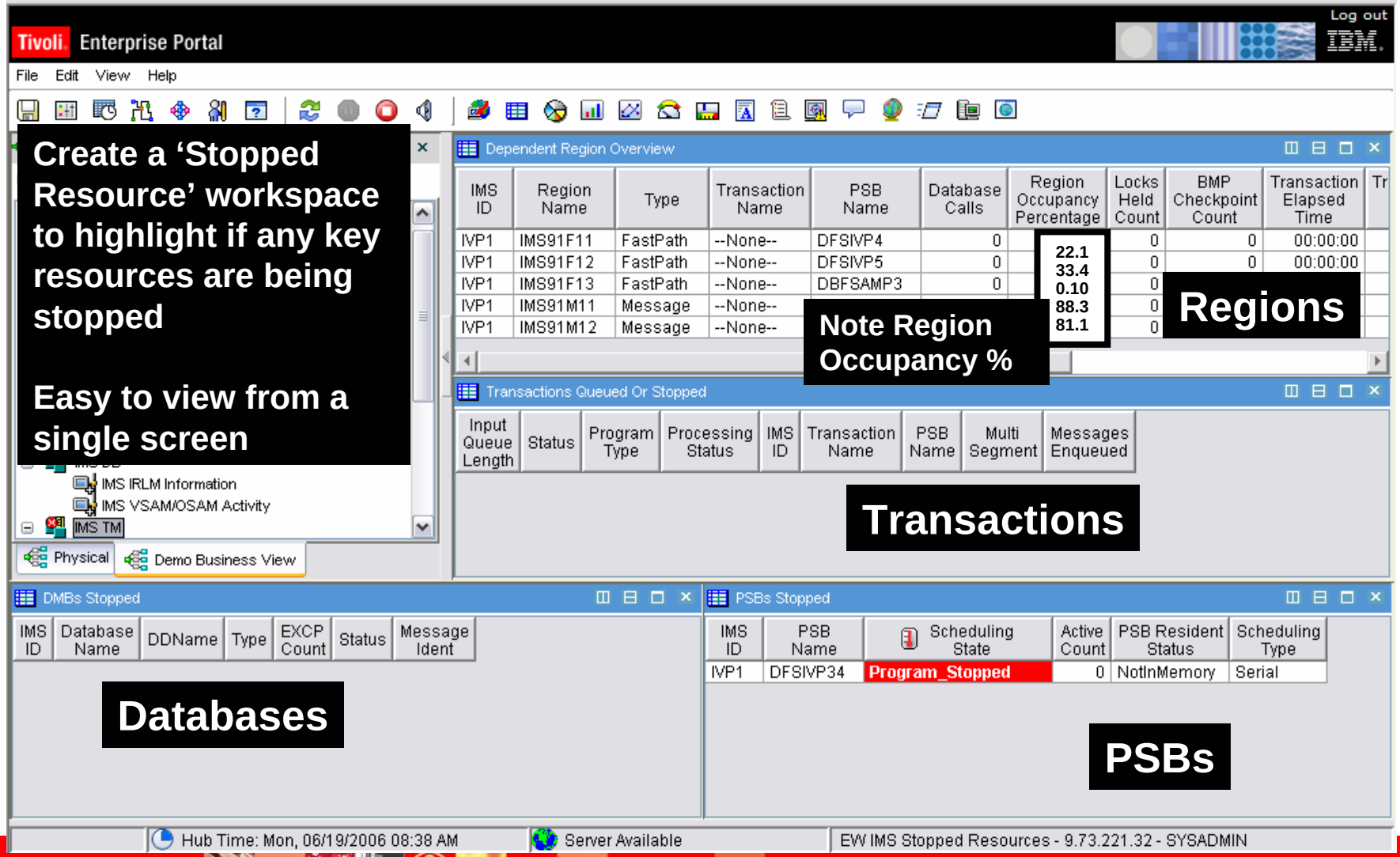
Monitoring Flexibility And Customization
Create A Stopped And Bottlenecked Resource View

- Example - Use OMEGAMON XE to determine the likely cause of transaction workload queues
  - Include information on stopped resources that may be needed by the transactions
  - Include status and throughput information for key regions
  - Highlight potential problems using the TEP

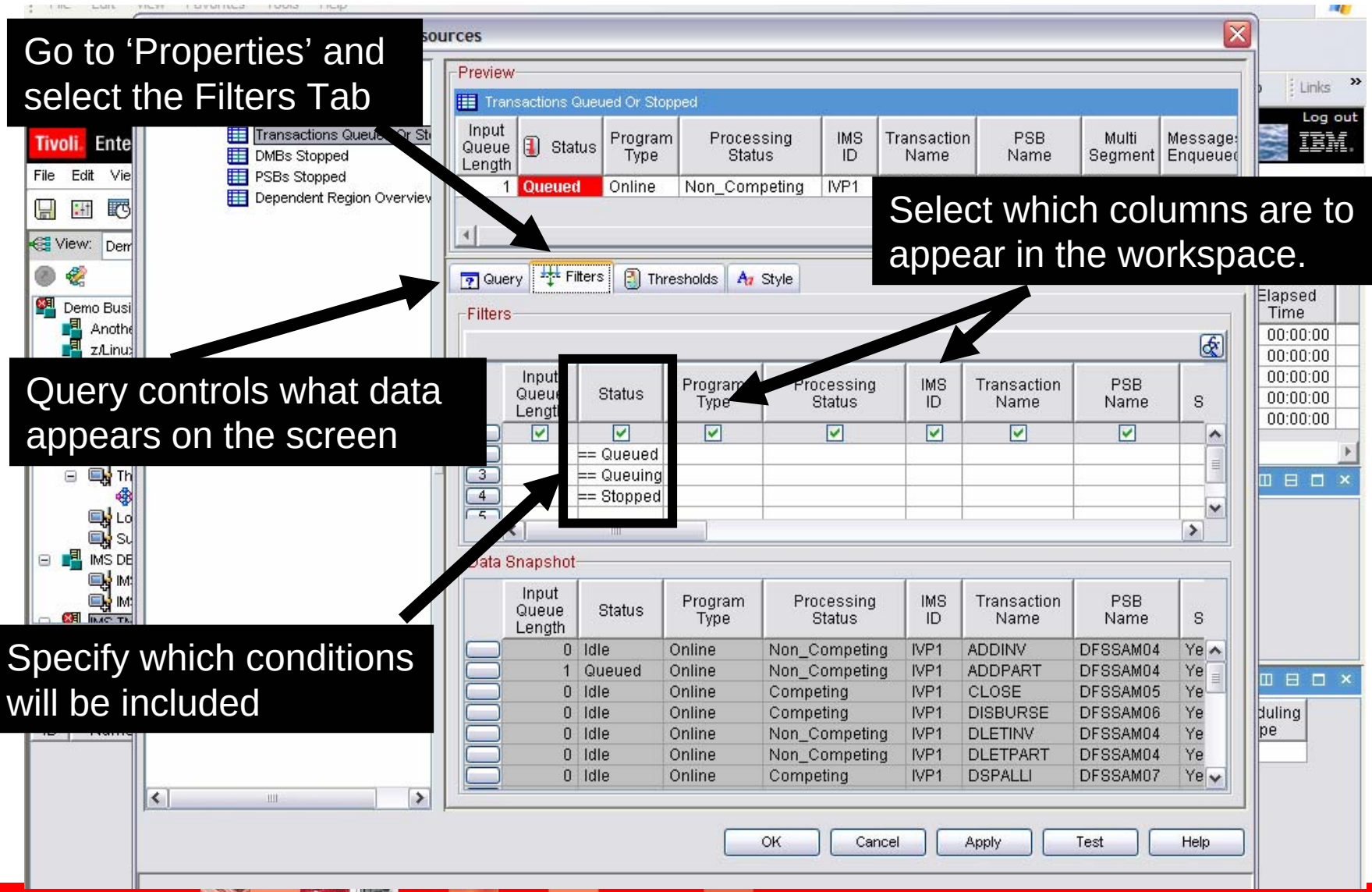
TEP Workspace Customization

- OMEGAMON XE For IMS provides the ability to build customized real time displays (workspaces)
- Any of the product provided workspaces may be adjusted to meet user needs
- The user may make new workspaces as needed to target specific monitoring needs
  - Create workspaces to target specific technical problems
- These new workspaces are stored in the Tivoli Enterprise Portal (TEP) server
  - New workspaces may be used by any user with appropriate authority and access to the TEP

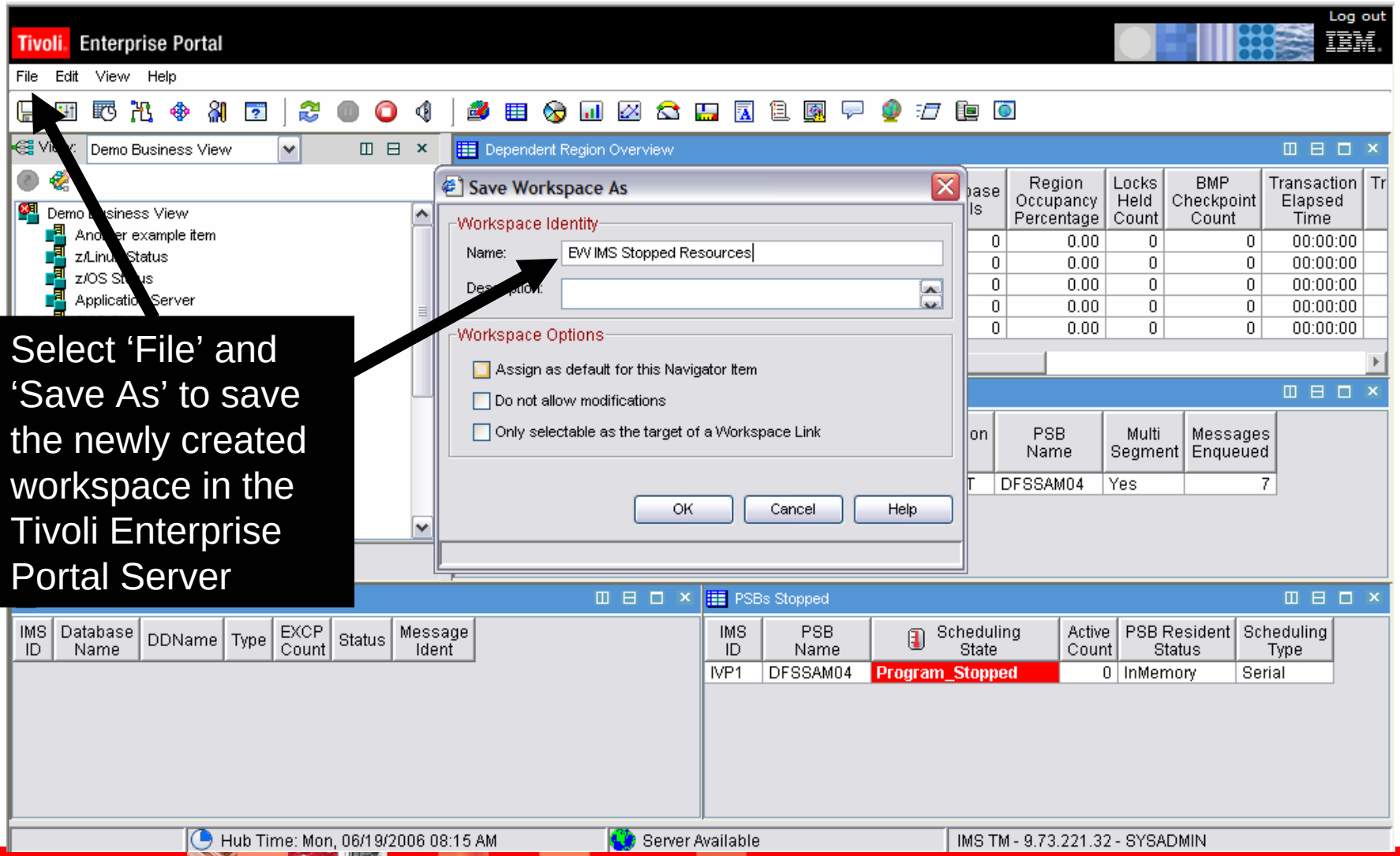
Leverage The Power Of OMEGAMON XE Create A 'Stopped Resource' Display



How To Create A Custom Workspace



Save The New Workspace

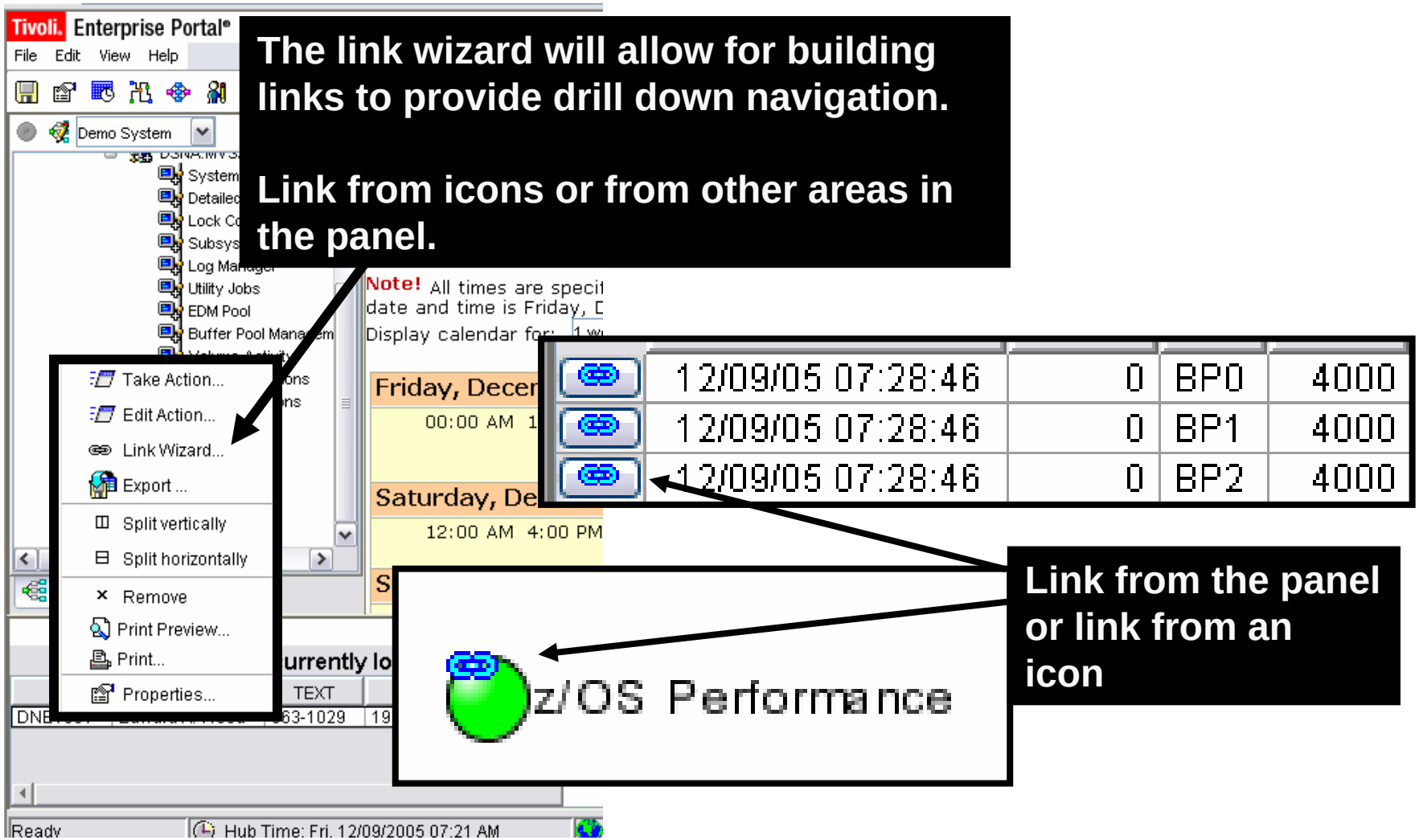


Select ‘File’ and ‘Save As’ to save the newly created workspace in the Tivoli Enterprise Portal Server

Correlation And Navigation

- Correlation may take many forms
  - An integrated graphic dashboard view
  - Intelligent linking and cross product navigation
    - Links may be from tabular detail views
    - Links may also be from graphics and icons
  - Intelligent alerts that integrate information from a variety of sources

Links May Be Built From Either Panel Detail Or Graphics

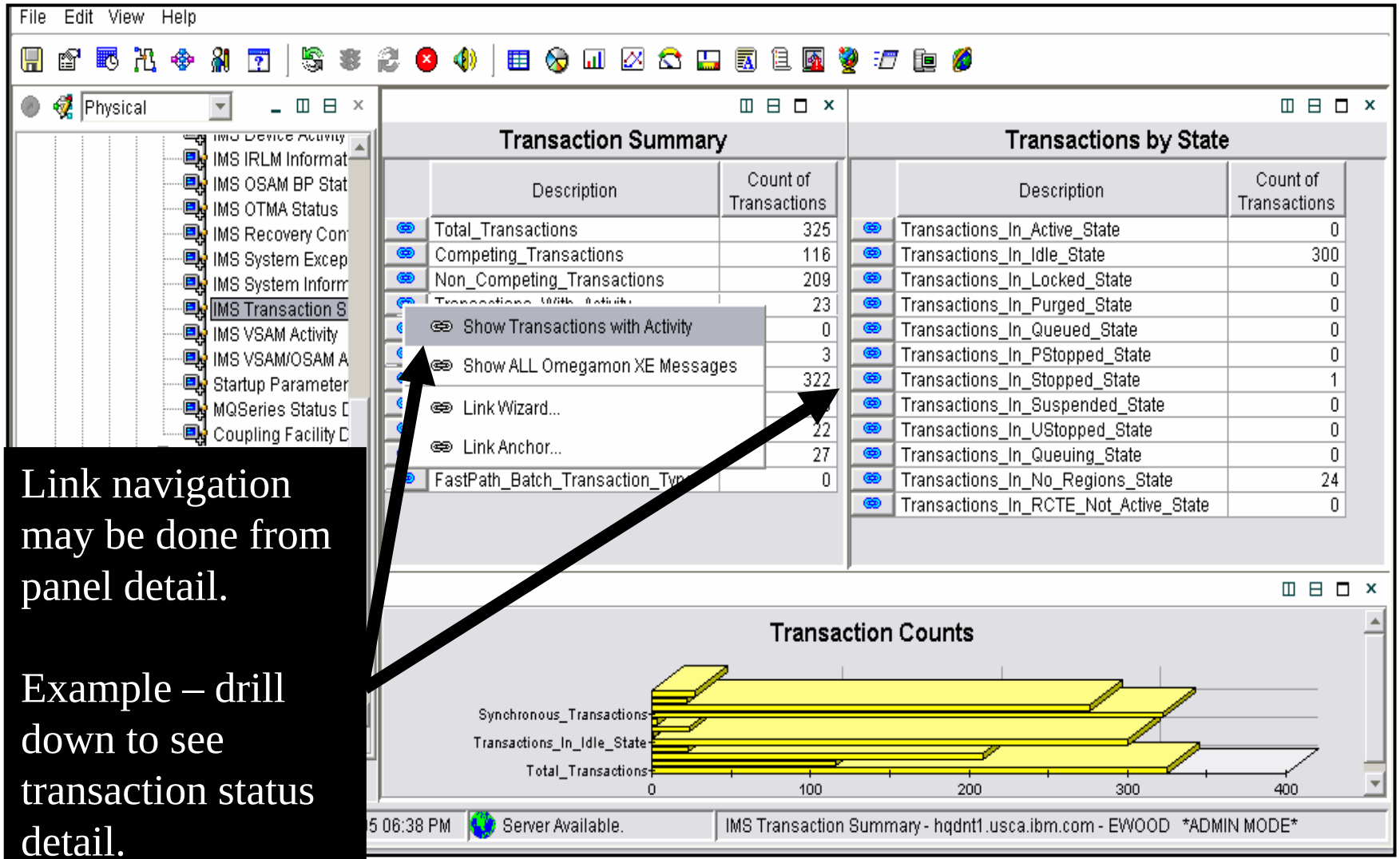


The link wizard will allow for building links to provide drill down navigation.

Link from icons or from other areas in the panel.

Link from the panel or link from an icon

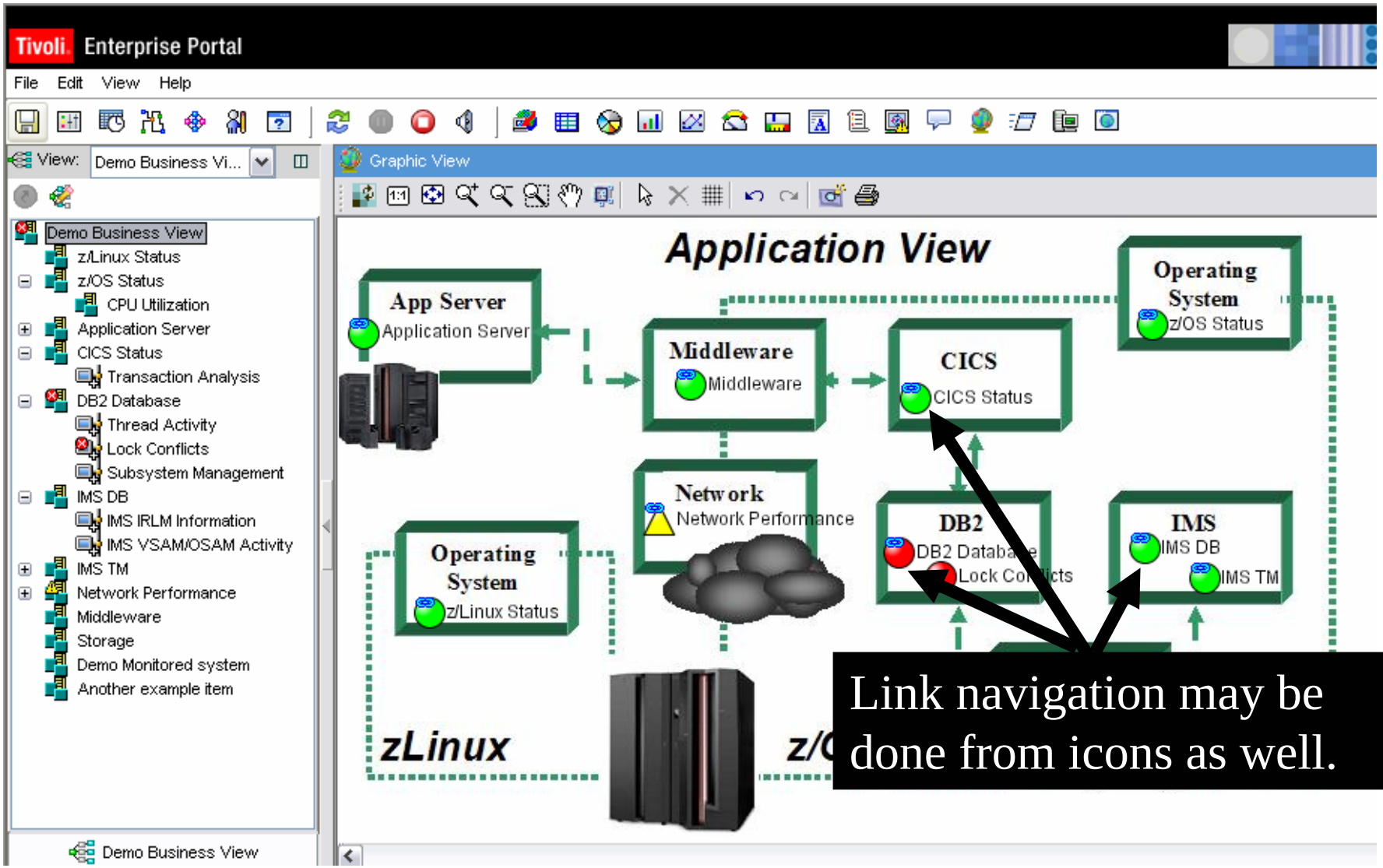
Example – A Link From Panel Detail



Link navigation may be done from panel detail.

Example – drill down to see transaction status detail.

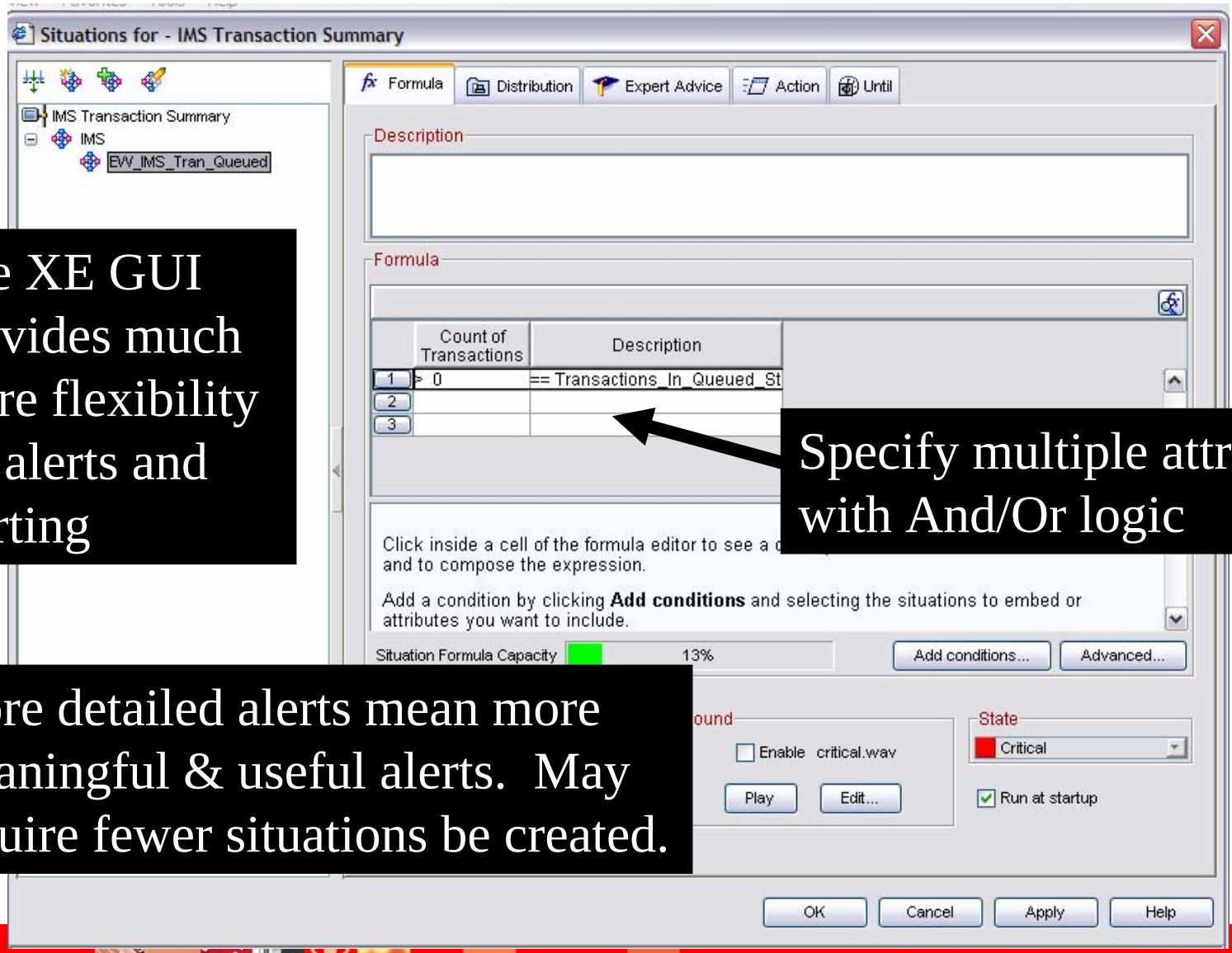
Link Navigation May Be From Graphic Icons



Situations Allow For Powerful And Flexible Alerts

- OMEGAMON XE situation capabilities allow for more intelligent alerts that integrate and correlate status and information
- Situations may incorporate Boolean logic
- Situations may be correlated with other situations
- Situations may in turn drive automated corrections

Using Boolean Logic For More Alert Flexibility

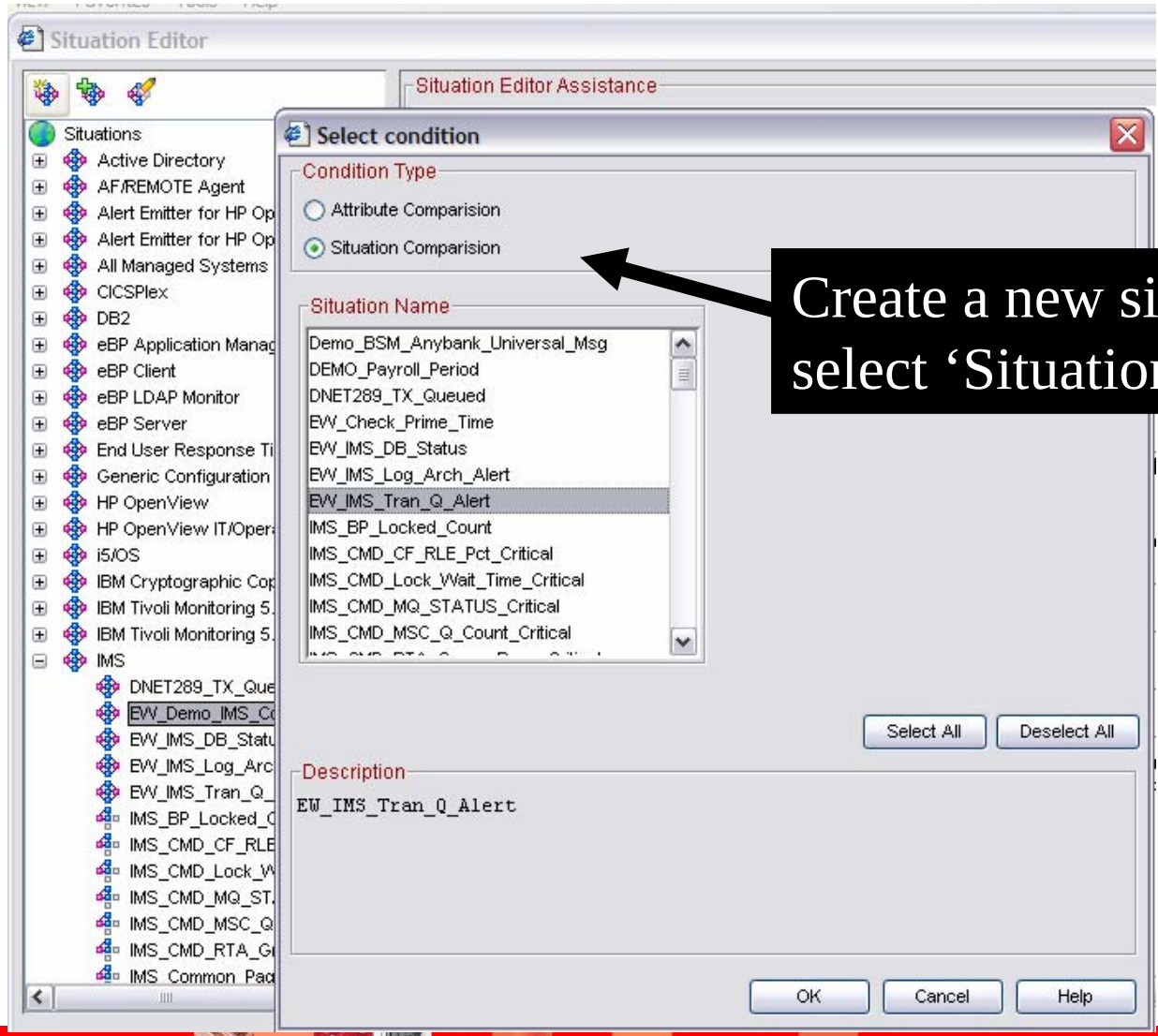


The XE GUI provides much more flexibility for alerts and alerting

Specify multiple attributes with And/Or logic

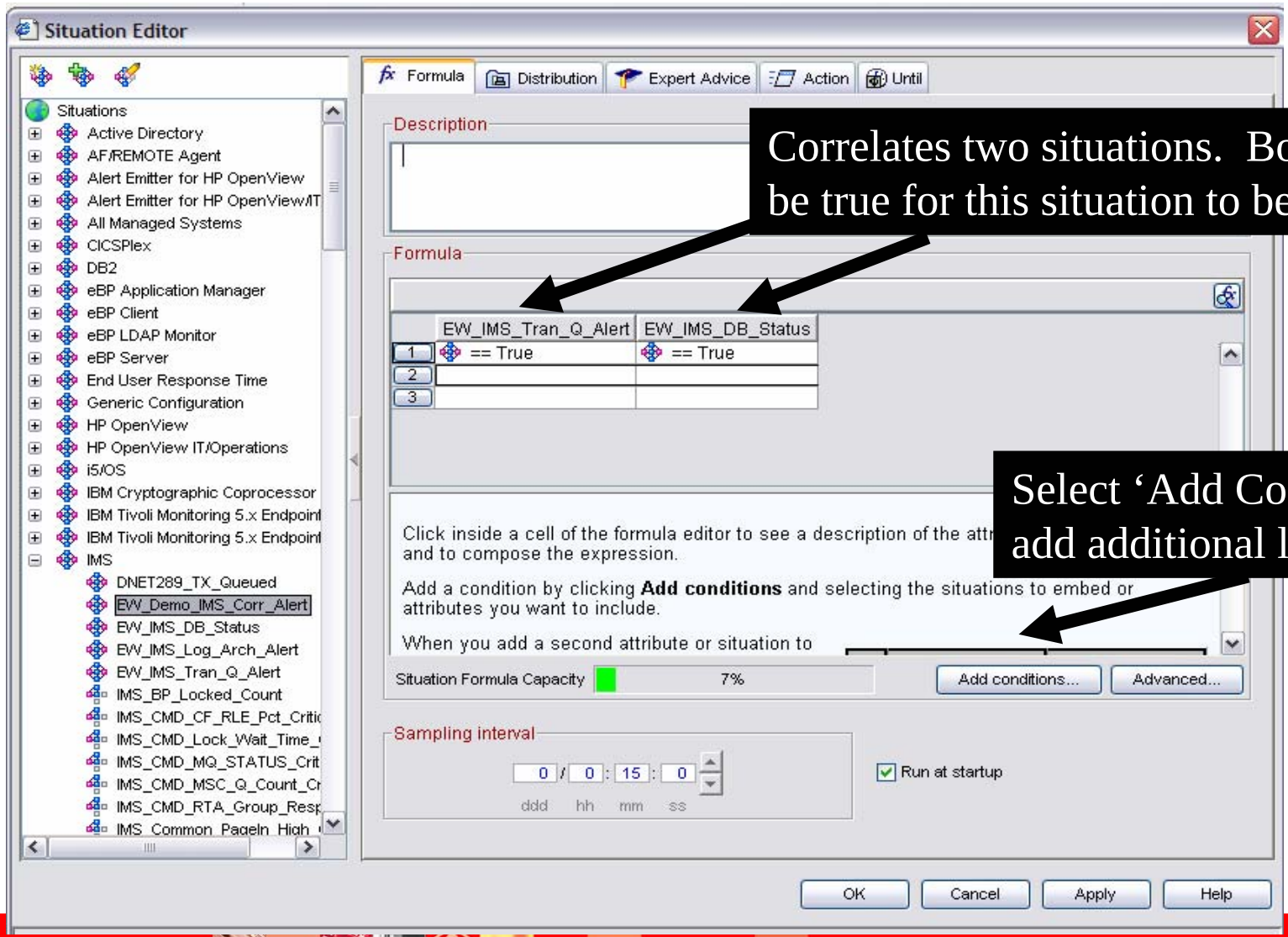
More detailed alerts mean more meaningful & useful alerts. May require fewer situations be created.

Situation Correlation - Example



Create a new situation and select ‘Situation Comparison’

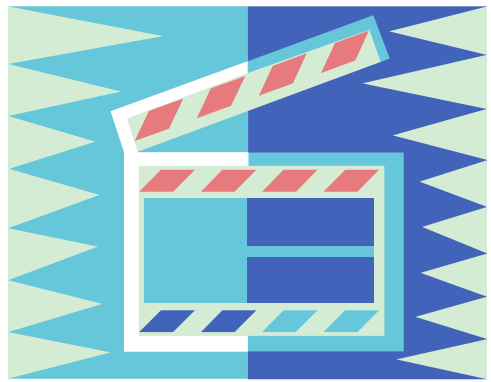
Correlated Alert Example



OMEGAMON V4.1.0 – Trends and Directions

Objectives

- Customer Satisfaction
  - Globalization
  - Exploitation of new OS and middleware releases
  - Customer Enhancements
- Portfolio Simplification
  - Candle Management Workstation and OMEGAMON II continued movement to XE
  - Merging of functionality in product suites where it makes sense
- Integration
  - Dynamic Workspace Linking
  - Launch in Context
    - TSLA, TBSM, and more
  - Tivoli Data Warehouse – pruning and aggregation
- Serviceability
  - Problem Determination Guides
  - ICAT enhancements

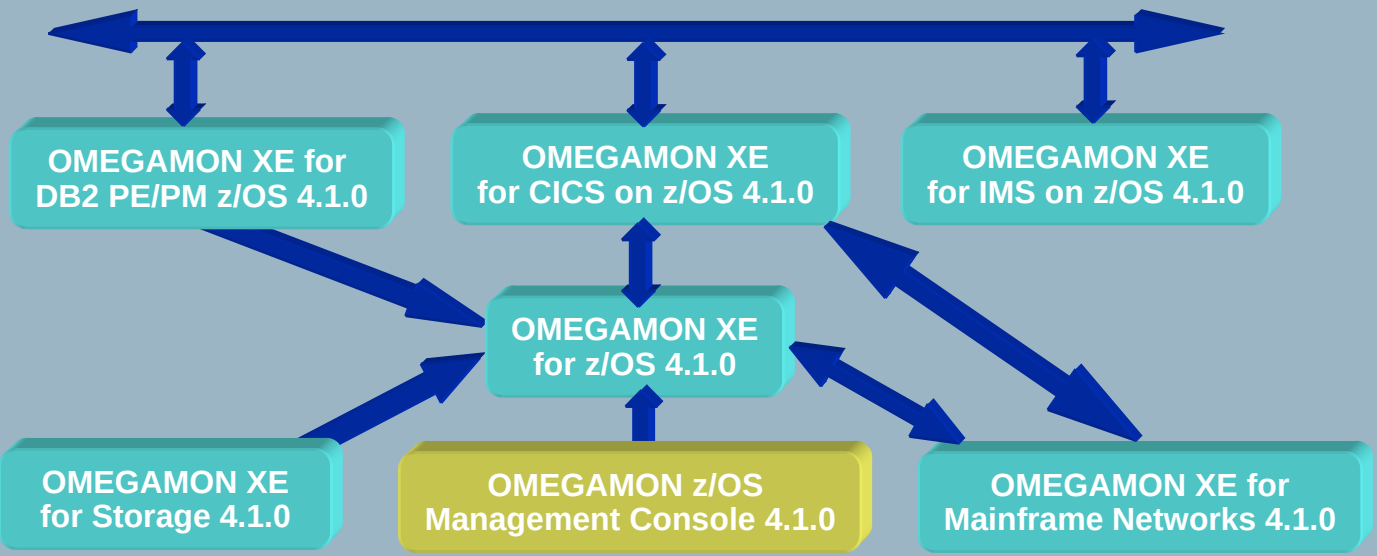


Dynamic Workspace Linking Functionality

Problem: **How do I quickly find a potential problem that requires multiple monitoring products?**

Scenario: **Dynamically link in context from CICS transaction to the associated DB2 thread**

Solution: **Dynamic Workspace Linking**
Product provided links & user customized



Summary And General Recommendations

- Understand and exploit the strengths of OMEGAMON
- Tivoli Enterprise Portal (TEP) GUI Interface
  - Correlation and high level analysis
  - Problem identification, notification, and isolation
  - Robust correlated alert generation
  - Integrated automation with corrective actions
- 3270 Classic Interface
  - Deep dive detailed analysis
  - Command driven with the ability to build custom screen spaces
  - Screen logging and automated screen facility options

Thank You!!!!!