

iSeries Navigator Management Central

System Monitors

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Never Been Here?

- “The system is running slow”
- “It has been like this for (x) time”
 - “I’ll look into it”
 - (y) time later “I didn’t find anything wrong”
- And the Beat goes on
 - And on
 - And on
 - And on

System Monitors

- Run continuously
- Open graph on Desktop
 - When defined parameter(s) exceeded
 - Multiple parameters allowed
 - Average CPU
 - Interactive CPU
 - Response time
 - Disk utilization
 - Etc.

System Monitors

- Graphs are customized
 - Sampling rate
 - Max. Graph value
 - Display time
- Can also be displayed on demand
- Historical data available

Management Central Monitors

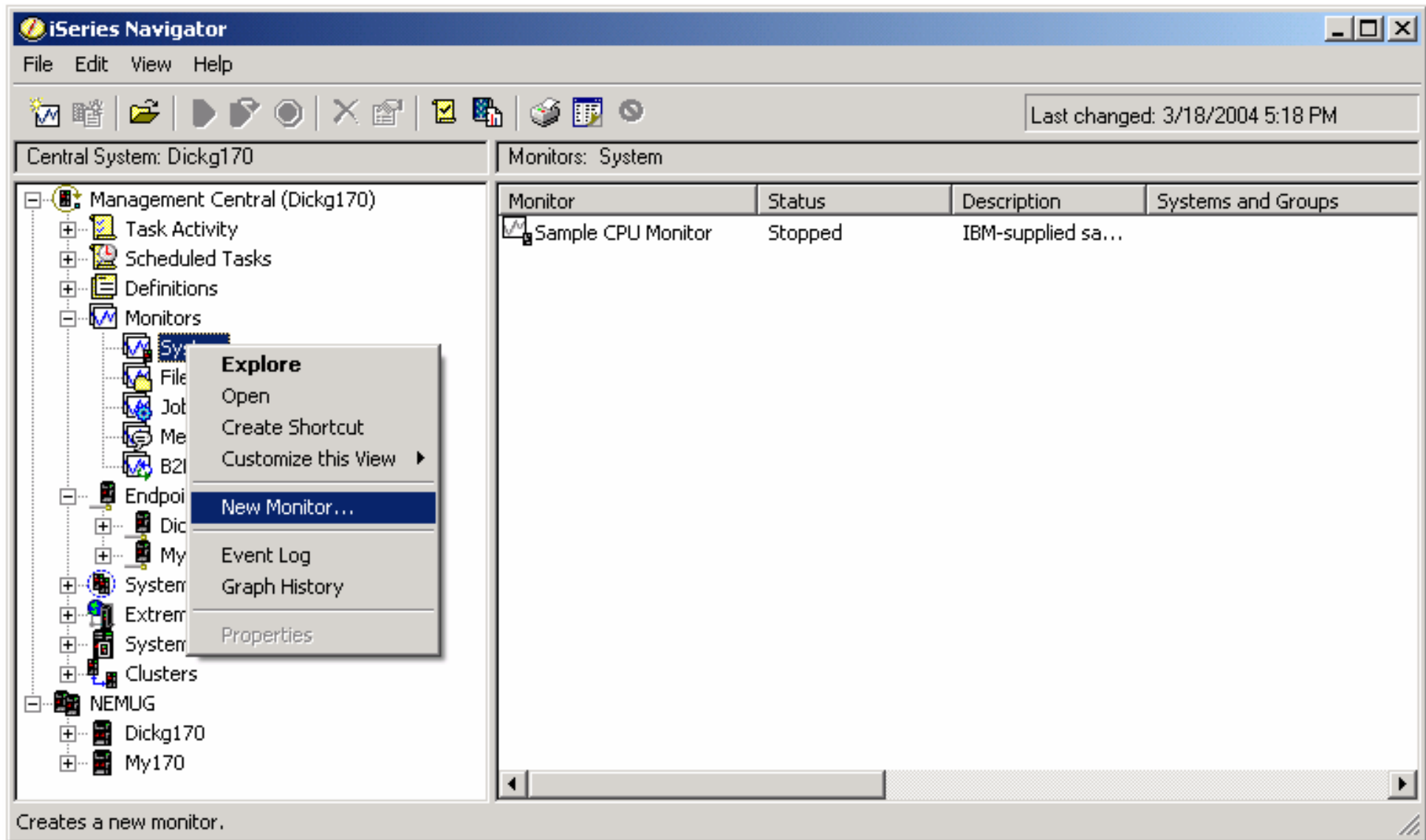
The screenshot shows the iSeries Navigator application window. The title bar reads "iSeries Navigator". The menu bar includes "File", "Edit", "View", and "Help". The toolbar contains various icons for file operations and monitoring. The status bar at the top right indicates "Last changed: 3/18/2004 5:18 PM".

The main window is divided into two panes. The left pane, titled "Central System: Dickg170", shows a tree view of the Management Central (Dickg170) structure. The right pane, titled "Monitors: System", displays a table of monitors.

Monitor	Status	Description	Systems and Groups
Sample CPU Monitor	Stopped	IBM-supplied sa...	

The status bar at the bottom indicates "1 - 1 of 1 objects" and "1 of 1 deleted."

New Monitor



New Monitor Name

The image shows a Windows XP-style dialog box titled "New Monitor". It has four tabs: "General", "Metrics", "Actions", and "Systems and Groups". The "General" tab is currently selected. Inside the dialog, there are two text input fields. The first is labeled "Name:" and contains the text "New Monitor". The second is labeled "Description:" and contains the text "Presentation monitor". At the bottom right of the dialog, there are three buttons: "OK", "Cancel", and "Help".

Field	Value
Name:	New Monitor
Description:	Presentation monitor

New Monitor Metrics

The screenshot shows a 'New Monitor' dialog box with a blue title bar and standard window controls. It has four tabs: 'General', 'Metrics', 'Actions', and 'Systems and Groups'. The 'Metrics' tab is active. It contains two main sections: 'Available metrics:' on the left and 'Metrics to monitor:' on the right. The 'Available metrics:' section has a list box with the following items: 'CPU Utilization (Average)' (selected), 'CPU Utilization (Interactive Jobs)', 'CPU Utilization (Interactive Feature)', 'CPU Utilization (Database Capability)', 'CPU Utilization (Secondary Workloads)', 'CPU Utilization Basic (Average)', 'Interactive Response Time (Average)', 'Interactive Response Time (Maximum)', 'Transaction Rate (Average)', and 'Transaction Rate (Interactive)'. Between these sections are 'Add -->' and 'Remove <--' buttons. The 'Metrics to monitor:' section is an empty list box. Below these sections are three sub-tabs: 'General', 'Threshold 1', and 'Threshold 2'. The 'General' sub-tab is active and contains three settings: 'Collection interval:' with a dropdown menu, 'Maximum graphing value:' with a numeric input field set to '0' and a 'percent' label, and 'Display time:' with a numeric input field set to '0' and a 'minutes' label. At the bottom right of the dialog are 'OK', 'Cancel', and 'Help' buttons.

New Monitor

General Metrics Actions Systems and Groups

Available metrics:

- CPU Utilization (Average)
- CPU Utilization (Interactive Jobs)
- CPU Utilization (Interactive Feature)
- CPU Utilization (Database Capability)
- CPU Utilization (Secondary Workloads)
- CPU Utilization Basic (Average)
- Interactive Response Time (Average)
- Interactive Response Time (Maximum)
- Transaction Rate (Average)
- Transaction Rate (Interactive)

Metrics to monitor:

Add -->

Remove <--

General Threshold 1 Threshold 2

Collection interval:

Maximum graphing value: 0 percent

Display time: 0 minutes

OK Cancel Help

Add Metric

New Monitor

General Metrics Actions Systems and Groups

Available metrics:

- CPU Utilization (Interactive Jobs)
- CPU Utilization (Interactive Feature)
- CPU Utilization (Database Capability)
- CPU Utilization (Secondary Workloads)
- CPU Utilization Basic (Average)
- Interactive Response Time (Average)
- Interactive Response Time (Maximum)
- Transaction Rate (Average)
- Transaction Rate (Interactive)
- Batch Logical Database I/O

Metrics to monitor:

- CPU Utilization (Average)

CPU Utilization (Average)

General Threshold 1 Threshold 2

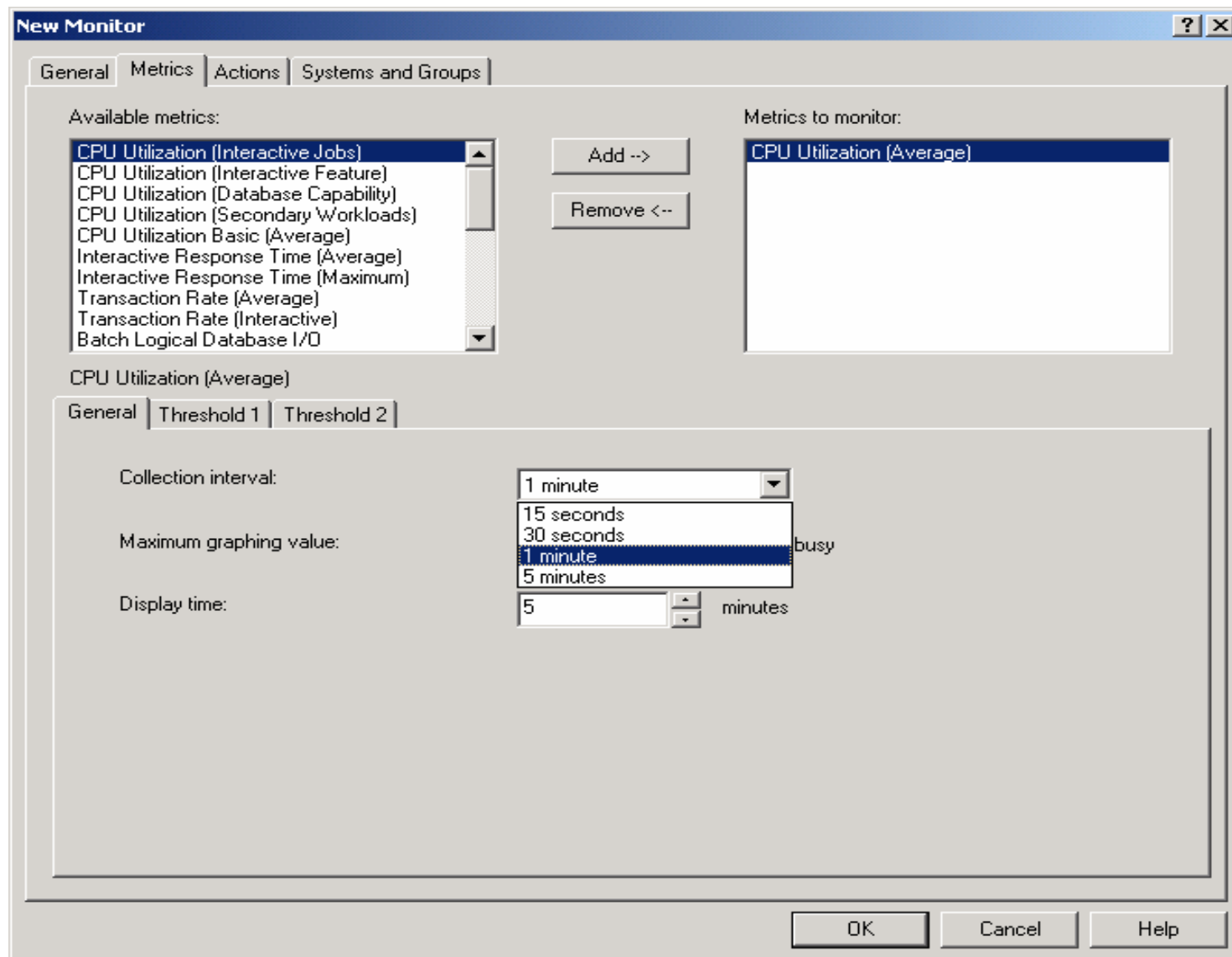
Collection interval: 1 minute

Maximum graphing value: 100 percent busy

Display time: 5 minutes

OK Cancel Help

Metric Graphing



CPU Threshold

The screenshot shows the 'New Monitor' dialog box with the 'Metrics' tab selected. The 'Available metrics' list on the left includes 'CPU Utilization (Interactive Jobs)', 'CPU Utilization (Interactive Feature)', 'CPU Utilization (Database Capability)', 'CPU Utilization (Secondary Workloads)', 'CPU Utilization Basic (Average)', 'Interactive Response Time (Average)', 'Interactive Response Time (Maximum)', 'Transaction Rate (Average)', 'Transaction Rate (Interactive)', and 'Batch Logical Database I/O'. The 'Add -->' button is used to move 'CPU Utilization (Average)' to the 'Metrics to monitor' list on the right. Below this, the 'CPU Utilization (Average)' monitor is configured. The 'General' tab is active, showing the 'Enable threshold' checkbox checked. The 'Threshold 1' sub-tab is selected, displaying the 'Trigger' section with a dropdown set to '>=' and a value of '0' percent busy, and a 'Duration' section with a dropdown set to '>=' and a value of '1' intervals. The 'OS/400 command' field is empty, with a 'Prompt...' button to its right. The 'Reset' section is also visible, with a dropdown set to '<' and a value of '0' percent busy, and a 'Duration' section with a dropdown set to '>=' and a value of '1' intervals. The 'OS/400 command' field is empty, with a 'Prompt...' button to its right. At the bottom of the dialog are 'OK', 'Cancel', and 'Help' buttons.

New Monitor

General Metrics Actions Systems and Groups

Available metrics:

- CPU Utilization (Interactive Jobs)
- CPU Utilization (Interactive Feature)
- CPU Utilization (Database Capability)
- CPU Utilization (Secondary Workloads)
- CPU Utilization Basic (Average)
- Interactive Response Time (Average)
- Interactive Response Time (Maximum)
- Transaction Rate (Average)
- Transaction Rate (Interactive)
- Batch Logical Database I/O

Metrics to monitor:

- CPU Utilization (Average)

CPU Utilization (Average)

General Threshold 1 Threshold 2

☒ Enable threshold

Trigger: \geq 0 percent busy

Duration: \geq 1 intervals

OS/400 command: Prompt...

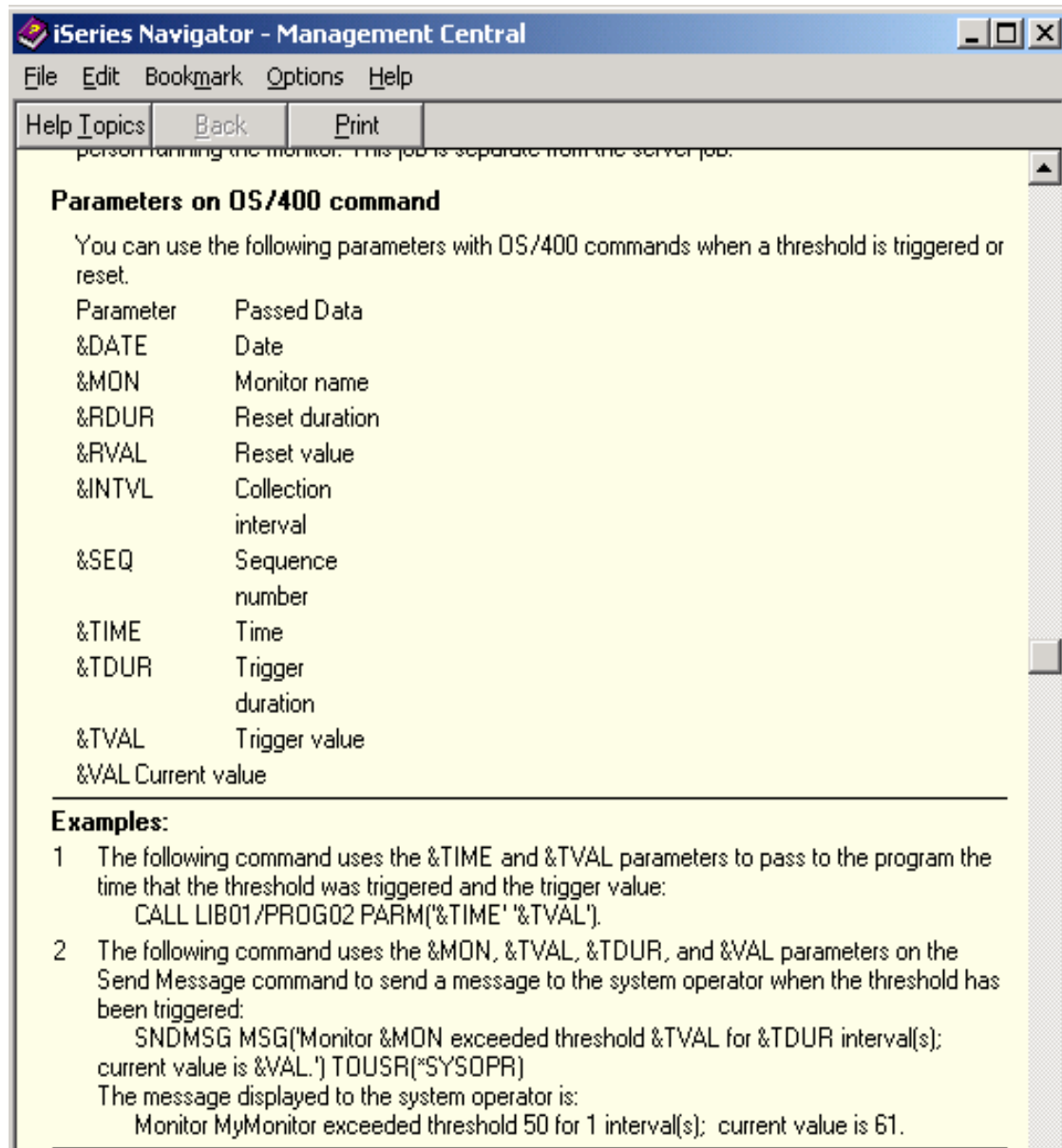
Reset: $<$ 0 percent busy

Duration: \geq 1 intervals

OS/400 command: Prompt...

OK Cancel Help

OS/400 Command



The screenshot shows a web browser window titled "iSeries Navigator - Management Central". The menu bar includes "File", "Edit", "Bookmark", "Options", and "Help". Below the menu bar are buttons for "Help Topics", "Back", and "Print". The main content area has a yellow background and contains the following text:

person running the monitor. This job is separate from the server job.

Parameters on OS/400 command

You can use the following parameters with OS/400 commands when a threshold is triggered or reset.

Parameter	Passed Data
&DATE	Date
&MON	Monitor name
&RDUR	Reset duration
&RVAL	Reset value
&INTVL	Collection interval
&SEQ	Sequence number
&TIME	Time
&TDUR	Trigger duration
&TVAL	Trigger value
&VAL	Current value

Examples:

- 1 The following command uses the &TIME and &TVAL parameters to pass to the program the time that the threshold was triggered and the trigger value:
`CALL LIB01/PROG02 PARM('&TIME' '&TVAL').`
- 2 The following command uses the &MON, &TVAL, &TDUR, and &VAL parameters on the Send Message command to send a message to the system operator when the threshold has been triggered:
`SNDMSG MSG('Monitor &MON exceeded threshold &TVAL for &TDUR interval(s); current value is &VAL.') TOUSR(*SYSOPR)`
The message displayed to the system operator is:
Monitor MyMonitor exceeded threshold 50 for 1 interval(s); current value is 61.

CPU Trigger

New Monitor [?] [X]

General Metrics Actions Systems and Groups

Available metrics:

- CPU Utilization (Interactive Jobs)
- CPU Utilization (Interactive Feature)
- CPU Utilization (Database Capability)
- CPU Utilization (Secondary Workloads)
- CPU Utilization Basic (Average)
- Interactive Response Time (Average)
- Interactive Response Time (Maximum)
- Transaction Rate (Average)
- Transaction Rate (Interactive)
- Batch Logical Database I/O

Metrics to monitor:

- CPU Utilization (Average)

CPU Utilization (Average)

General Threshold 1 Threshold 2

☒ Enable threshold

Trigger: \geq 5 percent busy

Duration: 1 intervals

OS/400 command:

Reset: $<$ 3 percent busy

Duration: 1 intervals

OS/400 command:

Disk Arm Utilization

The screenshot shows the 'New Monitor' dialog box with the 'Metrics' tab selected. The 'Available metrics' list on the left includes 'Disk Arm Utilization (Maximum)', which has been moved to the 'Metrics to monitor' list on the right. Below this, the 'Disk Arm Utilization (Maximum)' configuration is shown with the 'General' tab active. The 'Enable threshold' checkbox is checked. Under 'Threshold 1', the trigger is set to '>=' with a value of 50 percent busy and a duration of 1 interval. The 'OS/400 command' field is empty with a 'Prompt...' button. Under 'Threshold 2', the trigger is set to '<' with a value of 40 percent busy and a duration of 1 interval. The 'OS/400 command' field is also empty with a 'Prompt...' button. At the bottom are 'OK', 'Cancel', and 'Help' buttons.

New Monitor [?] [X]

General Metrics Actions Systems and Groups

Available metrics:

- Interactive Response Time (Maximum)
- Transaction Rate (Average)
- Transaction Rate (Interactive)
- Batch Logical Database I/O
- Disk Arm Utilization (Average)
- Disk Storage (Average)
- Disk Storage (Maximum)
- Disk IOP Utilization (Average)
- Disk IOP Utilization (Maximum)
- Communications IOP Utilization (Maximum)

Metrics to monitor:

- CPU Utilization (Average)
- Disk Arm Utilization (Maximum)

Disk Arm Utilization (Maximum)

General Threshold 1 Threshold 2

☒ Enable threshold

Trigger: \geq 50 percent busy

Duration: 1 intervals

OS/400 command: Prompt...

Reset: $<$ 40 percent busy

Duration: 1 intervals

OS/400 command: Prompt...

OK Cancel Help

Disk IOP Utilization

The screenshot shows the 'New Monitor' dialog box with the 'Metrics' tab selected. The 'Available metrics' list on the left includes various system metrics, with 'Disk IOP Utilization (Maximum)' selected. The 'Metrics to monitor' list on the right contains 'CPU Utilization (Average)', 'Disk Arm Utilization (Maximum)', and 'Disk IOP Utilization (Average)', which is highlighted. Below these lists, the 'Disk IOP Utilization (Average)' monitor is configured. The 'General' tab is active, showing a threshold of 50 percent busy for a duration of 1 interval. The 'Threshold 1' tab is also visible, showing a threshold of 40 percent busy for a duration of 1 interval. The 'OS/400 command' field is empty for both thresholds, and the 'Prompt...' button is available for each.

New Monitor [?] [X]

General Metrics Actions Systems and Groups

Available metrics:

- Interactive Response Time (Maximum)
- Transaction Rate (Average)
- Transaction Rate (Interactive)
- Batch Logical Database I/O
- Disk Arm Utilization (Average)
- Disk Storage (Average)
- Disk Storage (Maximum)
- Disk IOP Utilization (Maximum)**
- Communications IOP Utilization (Maximum)
- Communications IOP Utilization (Average)

Metrics to monitor:

- CPU Utilization (Average)
- Disk Arm Utilization (Maximum)
- Disk IOP Utilization (Average)**

Disk IOP Utilization (Average)

General Threshold 1 Threshold 2

☒ Enable threshold

Trigger: \geq 50 percent busy

Duration: 1 intervals

OS/400 command: Prompt...

Reset: $<$ 40 percent busy

Duration: 1 intervals

OS/400 command: Prompt...

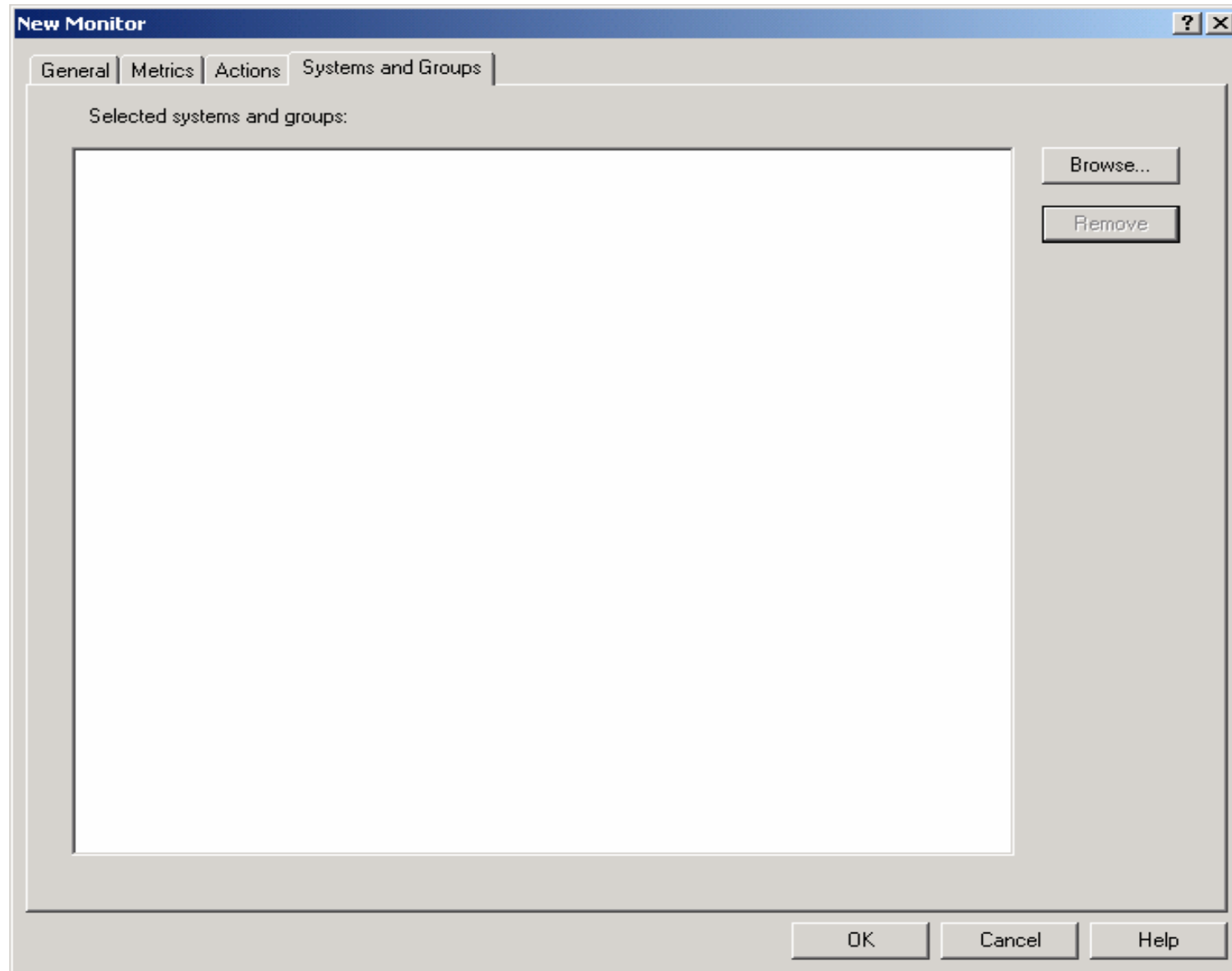
OK Cancel Help

Actions

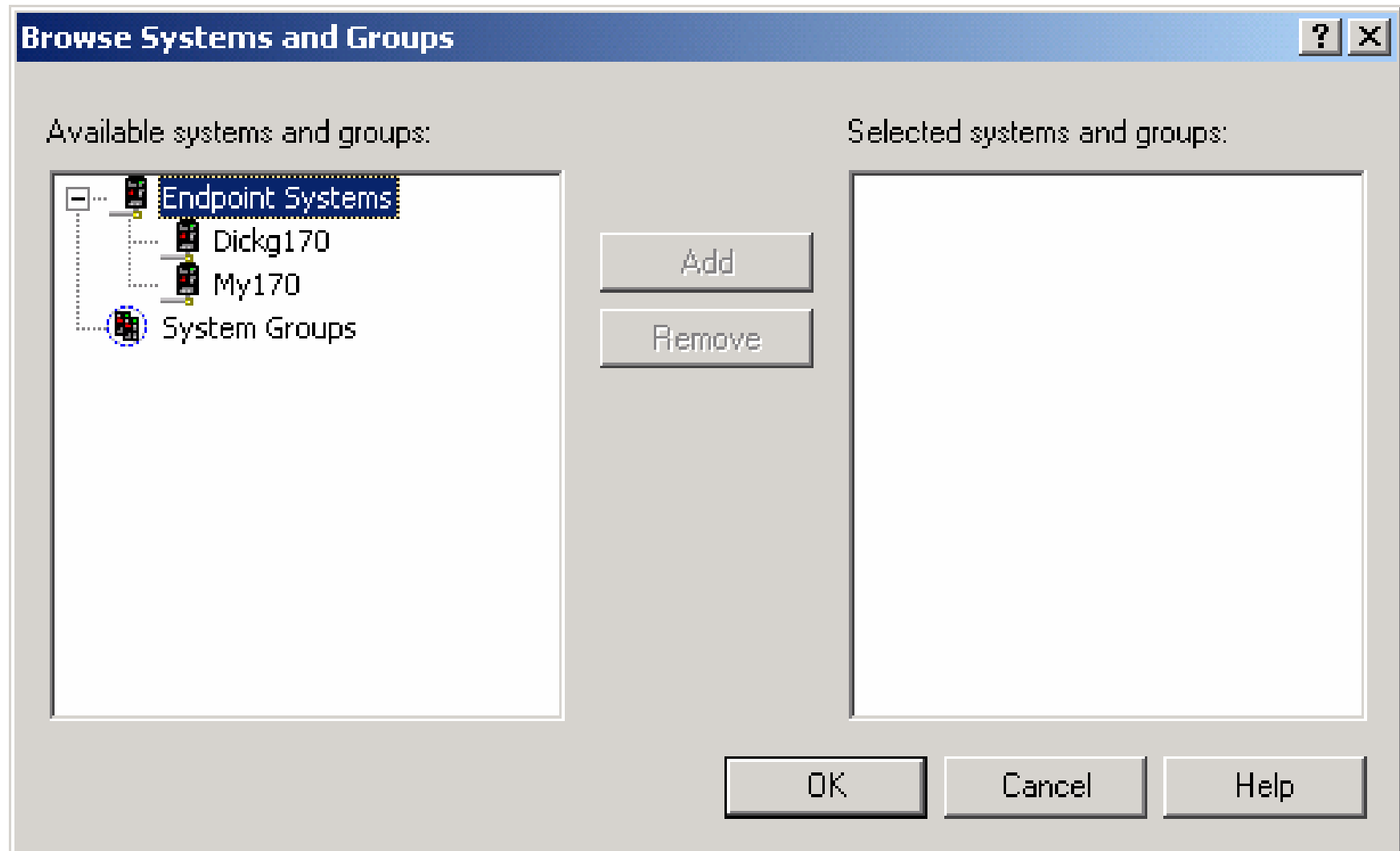
The screenshot shows a Windows-style dialog box titled "New Monitor". It has four tabs: "General", "Metrics", "Actions", and "Systems and Groups". The "Actions" tab is currently selected. Inside the dialog, there is a section titled "Actions for all metrics" which contains a table with two columns: "Trigger:" and "Reset:". The table lists four actions: "Log event:", "Open event log:", "Open monitor:", and "Sound alarm:". The "Log event:" and "Open monitor:" rows have checked boxes in both the "Trigger:" and "Reset:" columns. The "Open event log:" and "Sound alarm:" rows have unchecked boxes in both columns. At the bottom right of the dialog are three buttons: "OK", "Cancel", and "Help".

	Trigger:	Reset:
Log event:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Open event log:	<input type="checkbox"/>	<input type="checkbox"/>
Open monitor:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sound alarm:	<input type="checkbox"/>	<input type="checkbox"/>

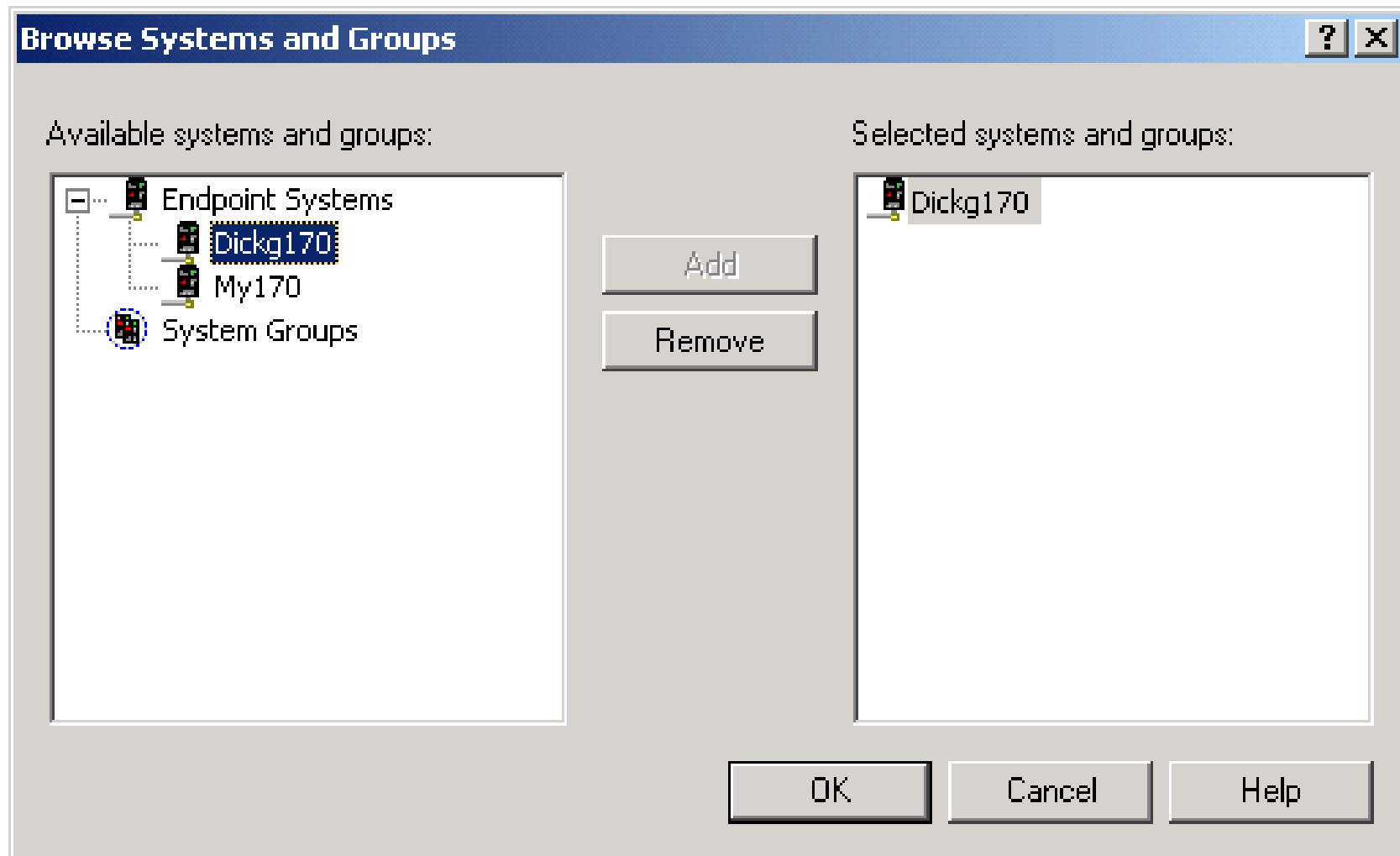
System(s)



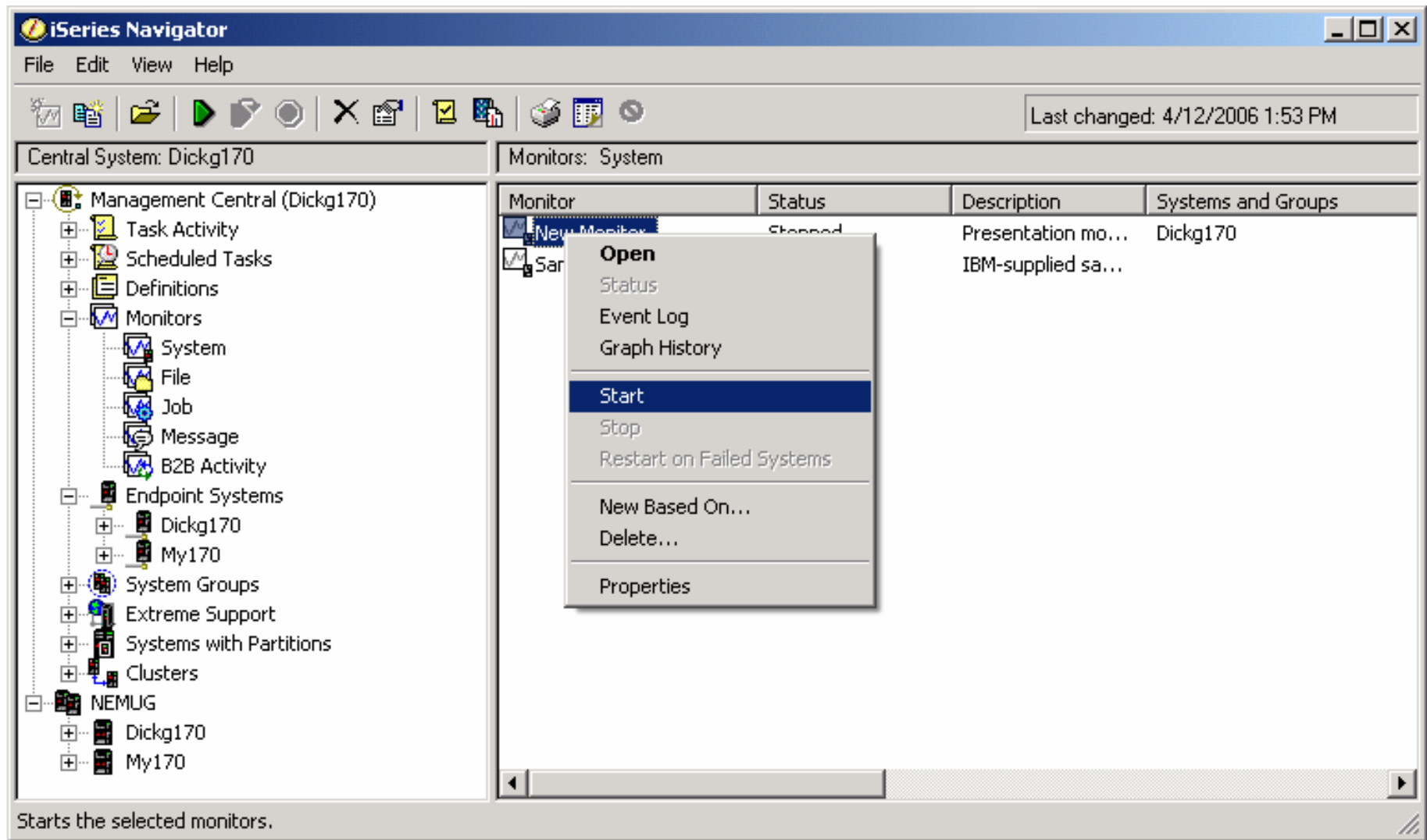
Browse Systems



Add System



Start Monitor



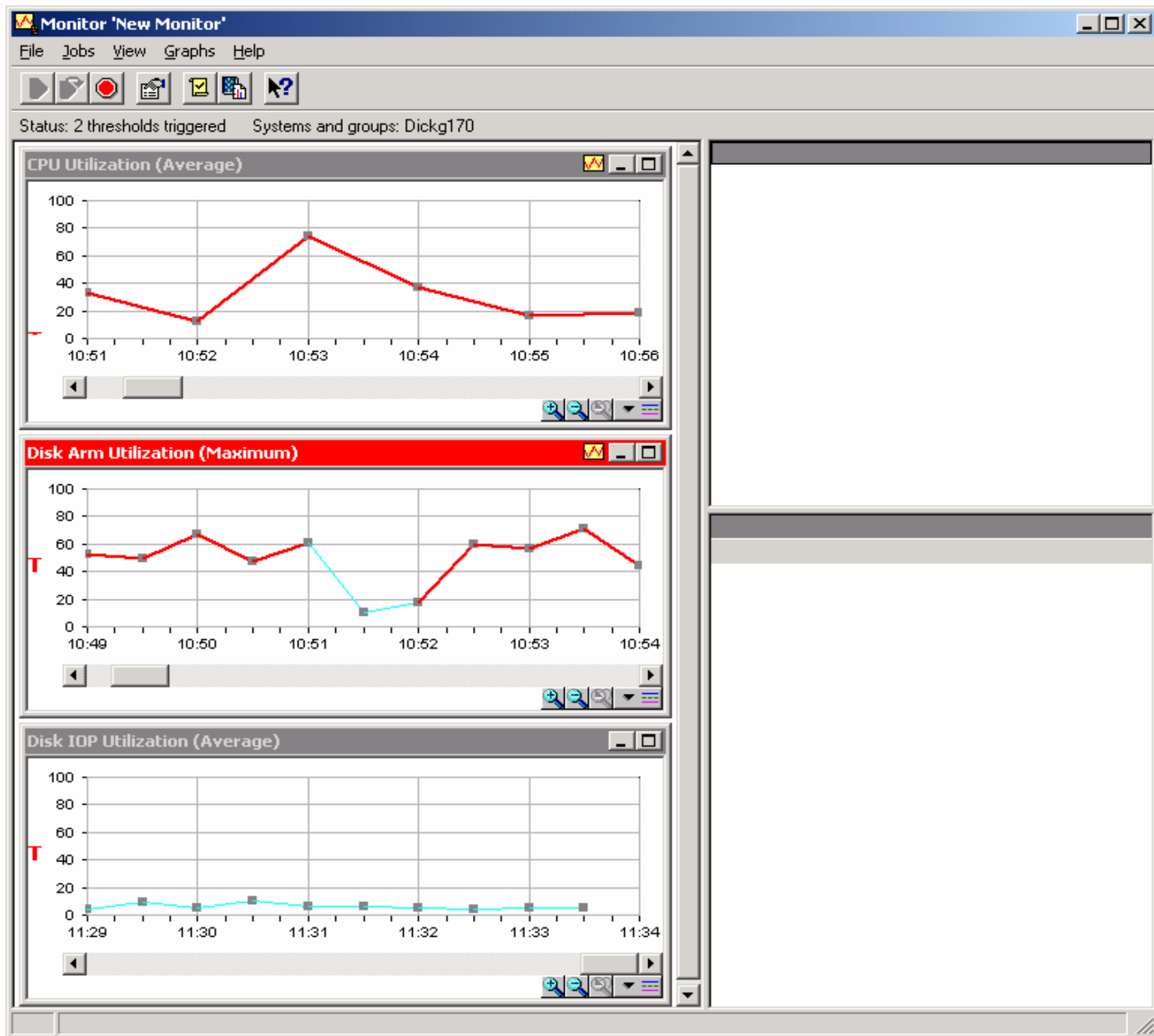
Threshold Triggered

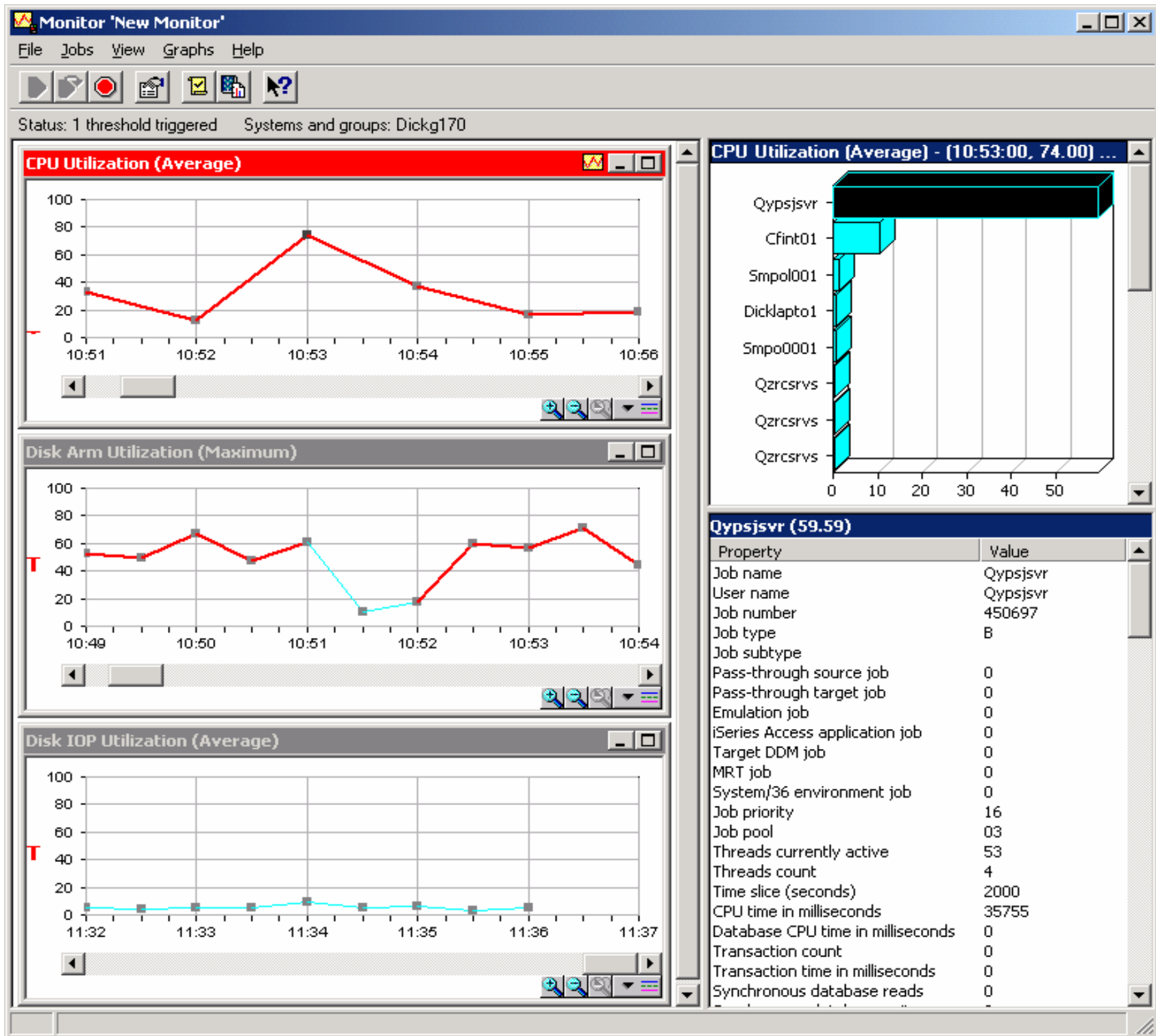
The screenshot displays the iSeries Navigator application window. The title bar reads "iSeries Navigator". The menu bar includes "File", "Edit", "View", and "Help". The toolbar contains various icons for navigation and actions. The status bar at the top right indicates "Last changed: 4/12/2006 2:02 PM".

The main window is divided into two panes. The left pane, titled "Central System: Dickg170", shows a tree view of the system hierarchy. The right pane, titled "Monitors: System", displays a table of monitors.

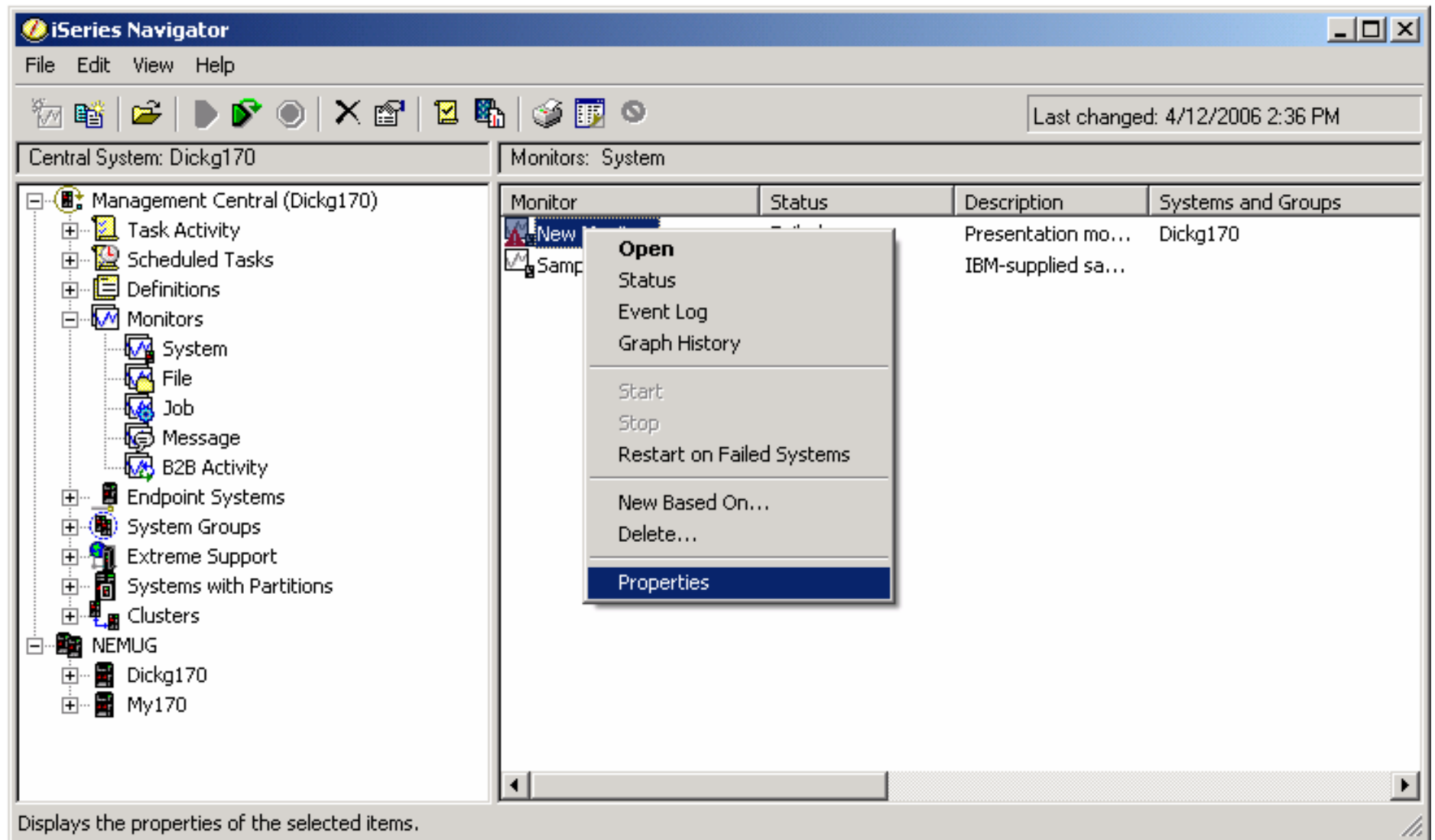
Monitor	Status	Description	Systems and Groups
New Monitor	2 thresholds trig...	Presentation mo...	Dickg170
Sample CPU Monitor	Stopped	IBM-supplied sa...	

The bottom status bar shows "1 - 2 of 2 objects" and a message: "Threshold triggered for monitor 'New Monitor' on system 'Dickg170'."

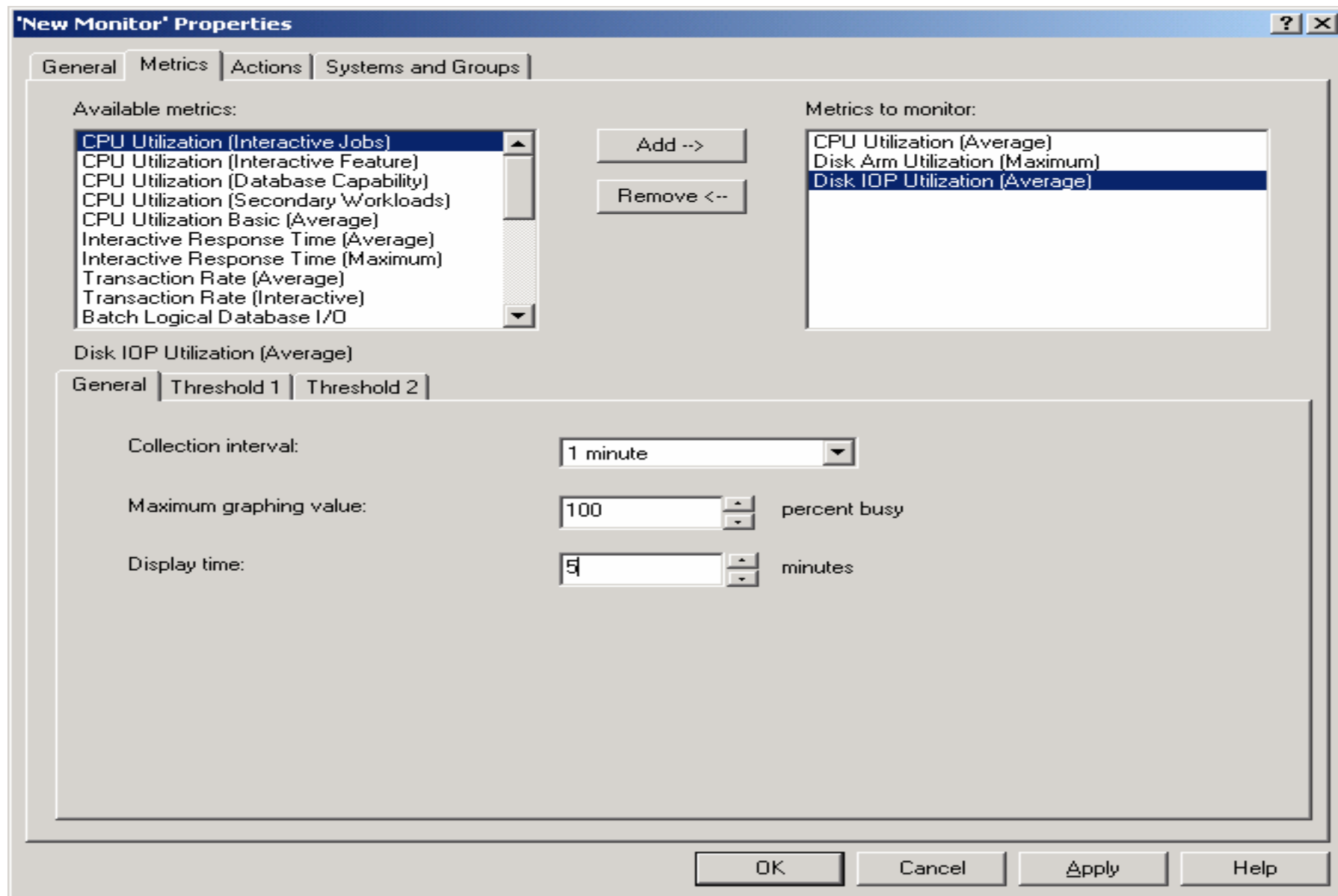




Modify in Real Time



Change the metrics



Change the Threshold

The screenshot shows the 'New Monitor' Properties dialog box with the 'Metrics' tab selected. The 'Available metrics' list on the left includes 'CPU Utilization (Interactive Jobs)', 'CPU Utilization (Interactive Feature)', 'CPU Utilization (Database Capability)', 'CPU Utilization (Secondary Workloads)', 'CPU Utilization Basic (Average)', 'Interactive Response Time (Average)', 'Interactive Response Time (Maximum)', 'Transaction Rate (Average)', 'Transaction Rate (Interactive)', and 'Batch Logical Database I/O'. The 'Metrics to monitor' list on the right contains 'CPU Utilization (Average)', 'Disk Arm Utilization (Maximum)', and 'Disk IOP Utilization (Average)'. Below these lists, the 'CPU Utilization (Average)' metric is selected, and the 'Threshold 1' tab is active. The 'Enable threshold' checkbox is checked. The 'Trigger' section shows a dropdown set to '>=' with a value of 50 and the unit 'percent busy'. The 'Duration' is set to 1 interval. The 'OS/400 command' field is empty, with a 'Prompt...' button to its right. The 'Reset' section shows a dropdown set to '<' with a value of 40 and the unit 'percent busy'. The 'Duration' is set to 1 interval. The 'OS/400 command' field is empty, with a 'Prompt...' button to its right. At the bottom of the dialog are buttons for 'OK', 'Cancel', 'Apply', and 'Help'.

'New Monitor' Properties

General Metrics Actions Systems and Groups

Available metrics:

- CPU Utilization (Interactive Jobs)
- CPU Utilization (Interactive Feature)
- CPU Utilization (Database Capability)
- CPU Utilization (Secondary Workloads)
- CPU Utilization Basic (Average)
- Interactive Response Time (Average)
- Interactive Response Time (Maximum)
- Transaction Rate (Average)
- Transaction Rate (Interactive)
- Batch Logical Database I/O

Metrics to monitor:

- CPU Utilization (Average)
- Disk Arm Utilization (Maximum)
- Disk IOP Utilization (Average)

CPU Utilization (Average)

General Threshold 1 Threshold 2

☒ Enable threshold

Trigger: \geq 50 percent busy

Duration: 1 intervals

OS/400 command: Prompt...

Reset: $<$ 40 percent busy

Duration: 1 intervals

OS/400 command: Prompt...

OK Cancel Apply Help

Historical Data

The screenshot shows the iSeries Navigator application window. The title bar reads 'iSeries Navigator'. The menu bar includes 'File', 'Edit', 'View', and 'Help'. The toolbar contains various icons for file operations and monitoring. The status bar at the top right indicates 'Last changed: 4/13/2006 10:43 AM'.

The main window is divided into two panes. The left pane, titled 'Central System: Dickg170', shows a tree view of the system hierarchy. The right pane, titled 'Monitors: System', displays a table of monitors.

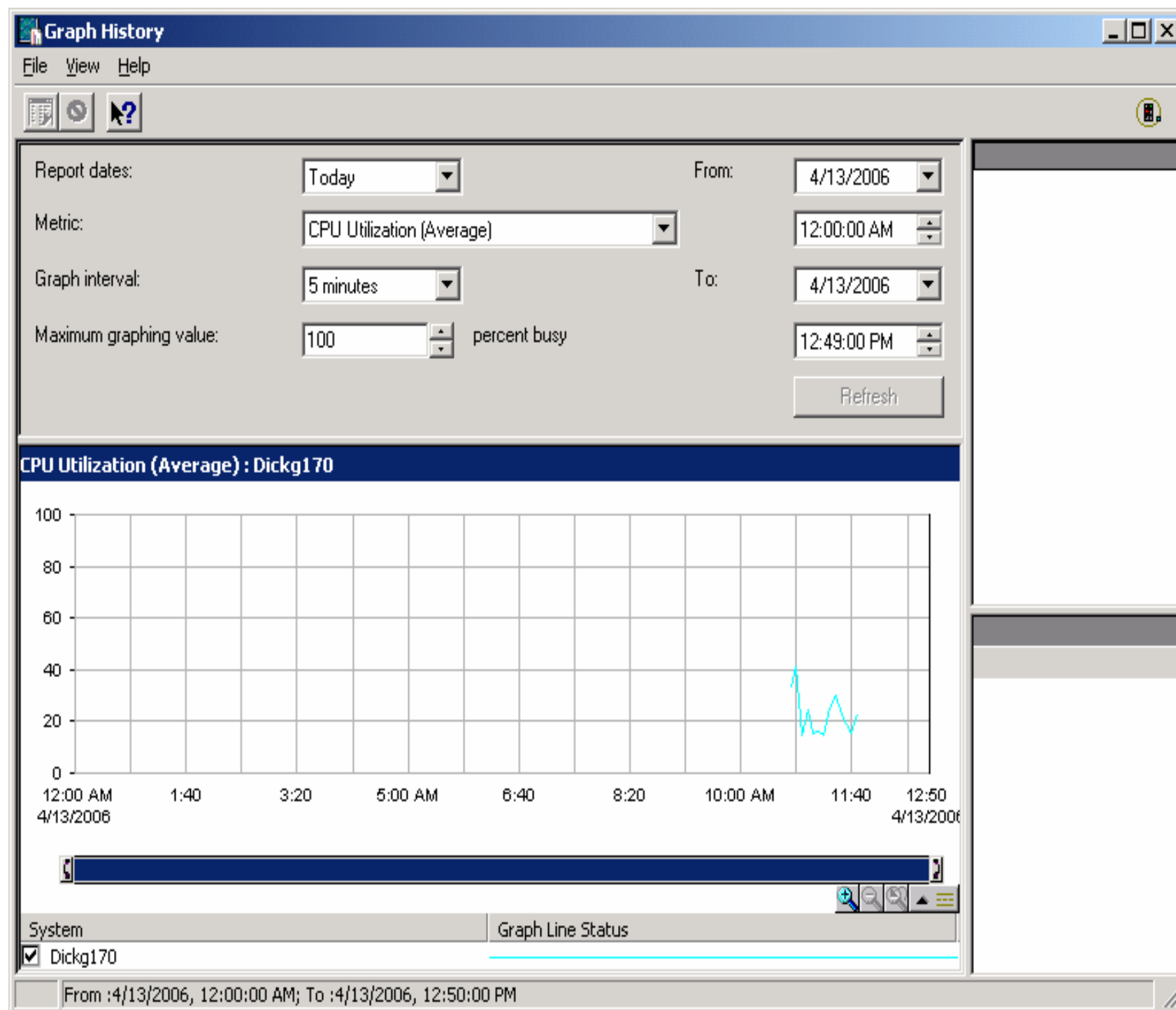
Monitors Table:

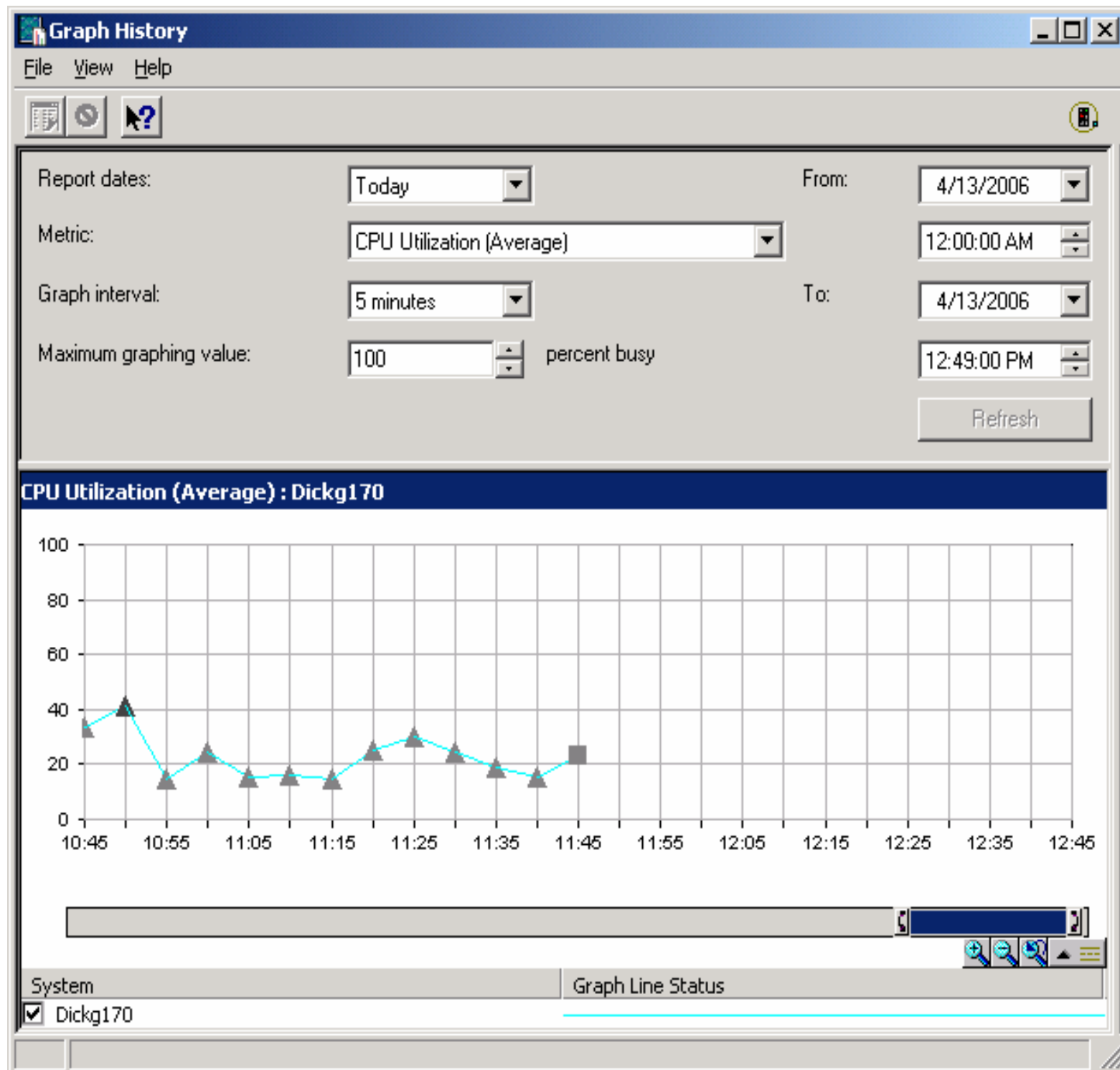
Monitor	Status	Description	Systems and Groups
New Monitor	Checking	Presentation mo...	Dickg170
Sample		IBM-supplied sa...	

A context menu is open over the 'New Monitor' entry. The menu items are:

- Open
- Status
- Event Log
- Graph History (highlighted)
- Start
- Stop
- Restart on Failed Systems
- New Based On...
- Delete...
- Properties

At the bottom of the window, a status bar reads: 'Displays a graphical history of performance data.'





Questions?

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