

# MAINVIEW® for UNIX System Services

## Key benefits

- Unravels OS/390 and z/OS UNIX System Services (USS) workloads and resources
- Provides detailed information on USS hierarchical file systems
- Compares current performance values against predefined BPXPRM (USS system parameters) settings to detect potential out-of-limit conditions
- Tracks resource use and process activity generated by a user or group of users
- Enables a quick response to changing conditions by providing the ability to dynamically alter key USS parameters

## Business challenge

The demands on OS/390 and z/OS enterprises have never been greater and OS/390 itself continues to grow more complex. With the advent of Unix running within OS/390 with OS/390 UNIX System Services, performance personnel are even more challenged to understand the impact of new USS workloads and resource consumption within their OS/390 enterprises.

## BMC Software solution

The MAINVIEW for UNIX System Services product from BMC Software allows users to observe workloads and resources consumed from the USS perspective that traditional performance monitors are unable to see.

MAINVIEW for USS monitors the following USS components:

- Processes
- Threads
- File systems
- BPXPRM parameters
- User information

MAINVIEW for UNIX System Services is part of the MAINVIEW for Infrastructure Management solution.

## Processes

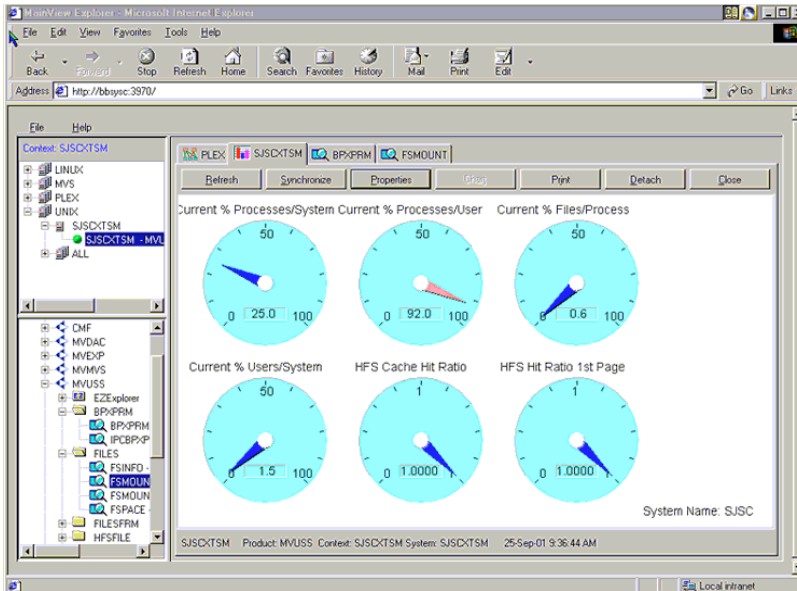
MAINVIEW for UNIX System Services provides detailed information about processes, including latch wait PID, and relates them back to the OS/390-z/OS-MVS address space. This allows you to take action to avoid problems before they occur.

Thread support displays threads associated with each process state, the amount of CPU usage, and the system call being executed to provide a more granular understanding of what is taking place.

## Hierarchical file systems

OS/390 UNIX System Services uses file systems that map to OS/390-MVS data set names.

MAINVIEW for UNIX System Services allows you to equate the Unix file systems or underlying file structure to the OS/390 data set names. This allows you to understand the performance and resource issues in both UNIX and OS/390 terms.



## Key USS metrics

MAINVIEW for UNIX System Services provides summary space information as well as a detailed directory, file listing, global buffer information, owning system, the actual file system statistics and files opened for a particular process. Any out-of-space conditions within the hierarchical file system (HFS) can be detected.

A component of MAINVIEW for UNIX System Services is MAINVIEW Alarm Manager. Working together, they provide automated detection on any threshold exceptions.

### Dynamic action/issuance of UNIX commands

MAINVIEW for UNIX System Services provides the ability to dynamically alter the following key USS parameters to enable a quick response to changing conditions:

- IPCSBPX
- BPXPRM
- HFS buffers
- HFS global buffer areas
- Display/modify individual process limits

- Extend HFS file systems

### BPXPRM parameters

This parameter list defines high limits within USS, such as the number of concurrent processes.

Using the embedded MAINVIEW Alarm Manager, MAINVIEW for UNIX System Services monitors the current values and generates alarm messages based on the defined parameter limits in BPXPRM. This allows you to report on any exception conditions that may cause potential slowdowns or error conditions within OS/390 UNIX System Services.

### User Information

MAINVIEW for UNIX System Services displays process statistics summarized by the SAF user ID or real group ID. This shows the resource use based on the processes running on the user's or group's behalf.

### Missing file systems

MAINVIEW for UNIX System Services enables you to identify critical file systems that are critical to application availability. MAINVIEW for UNIX System

Services determines if those file systems are available and provides warnings if they are not available.

### Easy access to related data

MAINVIEW for UNIX System Services gives you point and click access to related data points in MAINVIEW® for OS/390, MAINVIEW® for IP, and MAINVIEW® for WebSphere.

### IPC views

MAINVIEW for UNIX System Services provides views of IPC messages, semaphores, and shared memory.

### MAINVIEW for Infrastructure Management

MAINVIEW for Infrastructure Management monitors, manages, and automates enterprise server environments. It provides a wide array of online and historical views to manage your infrastructure across an unlimited number of z/OS, OS/390, UNIX System Services, or parallel sysplex environments.

MAINVIEW for Infrastructure Management allows you to do more with less. The automated component allows you to realize immediate application performance improvements with existing resources.

MAINVIEW for Infrastructure Management provides a high-performance, low-cost alternative to RMF.

### About BMC Software

BMC Software, Inc. [NYSE: BMC], is the leading provider of enterprise management solutions that assure business availability – maintaining and optimizing business-critical systems with automated infrastructure management and unique service management capabilities. BMC Software is a member of the S&P 500, with fiscal year 2001 revenues exceeding \$1.5 billion and offices worldwide.

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Change one or more of the following limits.
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MAXCORESIZE    16777216      IPCMSGNIDS        500
MAXCPUPTIME    5000          IPCMSGQNUM        10000
MAXFILEPROC    1900          IPCSEMNUMS        500
MAXFILESIZE    UNLIMITED     IPCSEMSEMS        25
MAXMAPAREFA    4096          IPCSEMNOFS        25
MAXPROCSYS     1000
MAXPROCUSER    200          IPCSHMNUMS        500
MAXPTYs        256          IPCSHMPAGES       4096
MAXSHAREPAGES  131072       IPCSHMSEGS        10
MAXTHREADS     500          IPCSHMSPAGES      262144
MAXTHREADTASKS 500
MAXUIDS        200
Type END to modify any changed values,
CANCEL to quit without making changes.
Current %..... 0.0 MAXRTYS..... 256
Interval Maximum. 0 MAXFILESIZE..... UNLIMITED
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MAXSHAREPAGES... 131072
Current #..... 0
Current %..... 0.0
Interval Maximum. 0
Interval Average. 0
Intvl Exceed Cnt. 0
Intvl Exceed Rate 0

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*Dynamic change of USS parameters*

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