

Web access to your system's capacity planning and performance analysis data.



## IBM *@server* iSeries Performance Management/400e



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### Highlights

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- **Forecast data processing growth that is based on trends**
- **Transmit collected data when needed (eLiza self-healing)**
- **Plan for and manage consistent service levels**
- **Maximize your return on current and future hardware investments**
- **Identify performance bottlenecks**
- **Reduce the time that is needed to collect and manage iSeries or AS/400e performance data**
- **Identify resource-intensive applications**

- **Size your next system upgrade easily**

- **Access performance graphs electronically when you need them!**

#### **Plan for your future**

Performance Management/400e (PM/400e), a dynamic part of OS/400, presents a broad array of benefits to you. As a systems management tool, PM/400e ensures that you get the most from your system by measuring growth and performance. These measurements allow you, your IBM business partner, or IBM to more easily plan for future system growth and identify potential resource constraints. Measuring your system's performance helps you make decisions that affect your budget and human resource plans. In addition, PM/400e provides you with information

that can help you plan ahead for future computing needs.

#### **Easy to use**

PM/400 is a function of the operating system that is automated and self-managing, which allows for easy use. PM/400e gathers the non-proprietary performance and capacity data from your iSeries or AS/400e server and sends it to IBM. In return, you receive this data in a series of reports and graphs that show your system's growth and performance.

#### **Accessible when you need it**

As an added bonus, your complete reports and graphs will be available where and when you need them electronically through traditional browser access. Contact your local IBM representative to learn about the availability and the terms and conditions that apply.

## PM/400e provides important information about your system...

### Partners in planning

Forming strategic partnerships is one way that you can plan for your future. PM/400e is more than a service; it is a partnership between you and IBM or your IBM Business Partner. This partnership helps you get the best return from your iSeries or AS/400e investment.

### Interpreting your performance with PM/400e

PM/400e provides important information that can identify many problems your system may have before they can affect its operations. This information includes data about all facets of your system:

#### Utilization of

- CPU, both interactive and batch workloads, as a percent of processor capacity
- Corresponding CPW measurement (a measurement of actual CPU cycles)
- Disk space

CPU is measured in average and peak average workloads.

#### Summarization of

- Interactive throughput
- Response time
- Tuning information
- Application information
- Growth trends

#### Recent enhancements

• Automatic data collection support: PM/400 automatically collects performance data, unless you upgrade from a previous release and turn off PM/400 performance data collection on the previous release. The data is not transmitted to IBM until you give permission to send it to IBM. The benefit of automatically collecting performance data is that you have the data when you need it and you can receive the PM/400e reports sooner after you activate PM/400.

• Memory reporting: This new graph represents a new approach to evaluating the effect of page faulting in terms of the cost of the faults. The cost of the fault is the time it takes for the disk operation to complete. The cost depends on the arm utilization at the time of the fault.

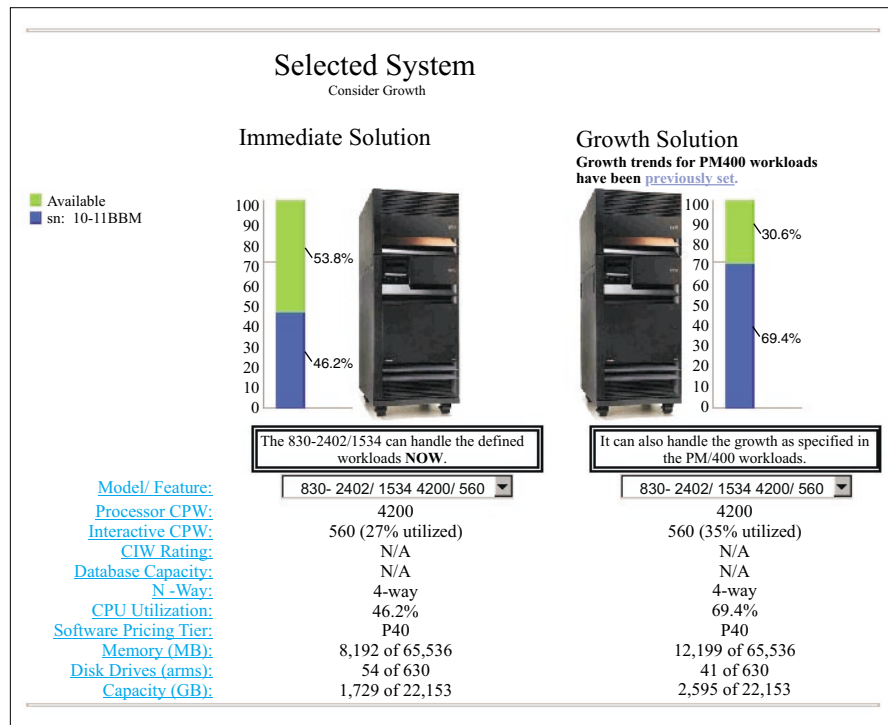
• Workload Estimator for iSeries with PM/400 integration: Planning for system growth has never been easier with the merging of your system's utilization and growth data (as reported by PM/400e) directly into the IBM Workload Estimator for iSeries. The Workload Estimator is a tool that helps you size your system needs based on estimated workloads for specific workload types. Through a web-based application, you can size the upgrade to the required iSeries system that accommodates your existing system's utilization, performance, and growth as reported by PM/400e. As an additional option, sizings can also include capacity for adding specific applications like Domino, Java, and Websphere, or the consolidation of multiple AS/400 or iSeries traditional OS/400 workloads on one system. This capability allows you to plan for future system requirements based on existing utilization data coming from your own system.

### Executive Summary, Report 150

The Executive Summary provides an easily understood summary on the status of your system. This stoplight graph shows an overview of the current performance situation, and gives a forecast for the next five months within these areas:

- Interactive processor utilization
- Total processor utilization
- Disk space utilization
- System and interactive processor utilization

The colors that appear in the traffic lights depend on the capacity utilization of your system, as well as the guidelines that have been set for the system. A green light indicates that capacity utilization is well below the recommended guideline, or that the status is good. A yellow light is displayed if the utilization is approaching the guideline. A red light indicates that the guideline has been reached or surpassed, which indicates that problems might occur. This would be considered a warning status.

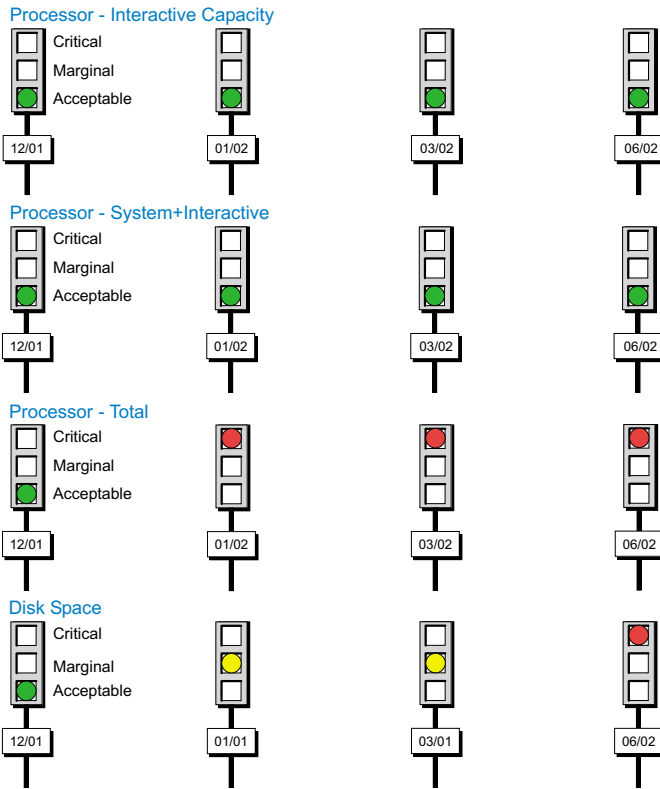


Example of future system sizing through integration of PM/400e data with the IBM Workload Estimator for iSeries

## Executive Summary

ABC Corporation  
 October 2001 - December 2001  
 Time frame 17.00 - 07.59

SWEDEN (10-ABCDE)  
 9406 730-2C6A CPU(s) 4  
 Internal memory in MB 8192  
 Disk capacity in GB 2167

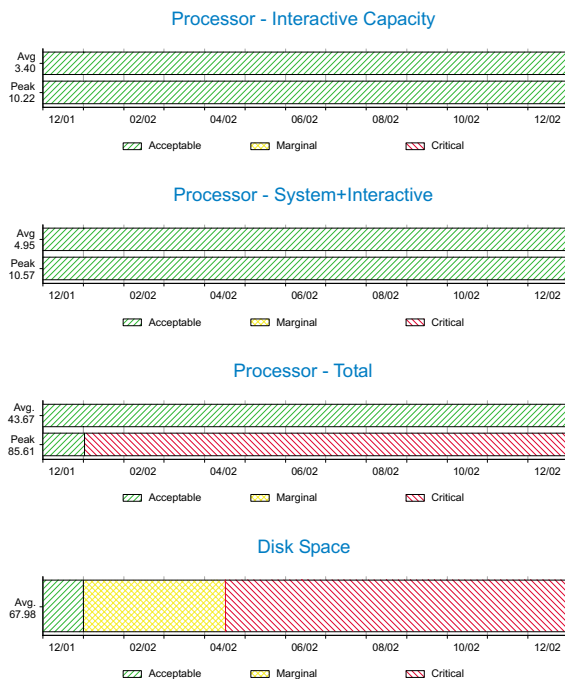


Report 150

## Management Summary

ABC Corporation  
 October 2001 - December 2001  
 Time frame 17.00 - 07.59

SWEDEN (10-ABCDE)  
 9406 730-2C6A CPU(s) 4  
 Internal memory in MB 8192  
 Disk capacity in GB 2167



Report 175

## The Management Summary Graph, Report 175

The PM/400e Management Summary Graph displays performance data from your system's CPU and disk usage. Based on your current performance trends, the profile displays your system's performance in terms of remaining growth. This information allows you, your IBM Business Partner, or IBM to more easily track your system's growth and predict future resource requirements.

Your customized management performance summary is available on the World Wide Web. After registering the installation of your system, access to your secured PM/400e Management Summary Graph is available at no additional charge at the PM/400e web site:

[www.ibm.com/eserver/series/pm400](http://www.ibm.com/eserver/series/pm400)

if your system processor is under warranty or if your system processor is covered under an IBM Maintenance Agreement. From the web site, select the "View Your Management Summary Graph" option.

Additionally, for no extra charge you will be provided through the postal mail, a Letter of Notification whenever your system is predicted to reach a performance threshold within six months.

Access to your data is secured through a unique PM/400e user ID and password that are automatically mailed to you after your first data is processed by IBM. You can make changes to passwords or request that your password be reset at the PM/400e web site.

To substantiate the data on the Management Summary Graph, more detailed reports and graphs are available for a fee. PM/400e provides this data to you in profiles. These different views offer a broad perspective of your system's performance that allows you to address a wide range of systems management issues.

### The Annual Profile, Report 675

The PM/400e Annual Profile displays a 13-month view of your system's activity. By identifying your seasonal activity, you learn the impact business needs have on your system's performance, including the percent utilized and actual CPU cycles (CPW) used. You can then determine how your system will grow through a projection of 3, 6, and 12-month trends.

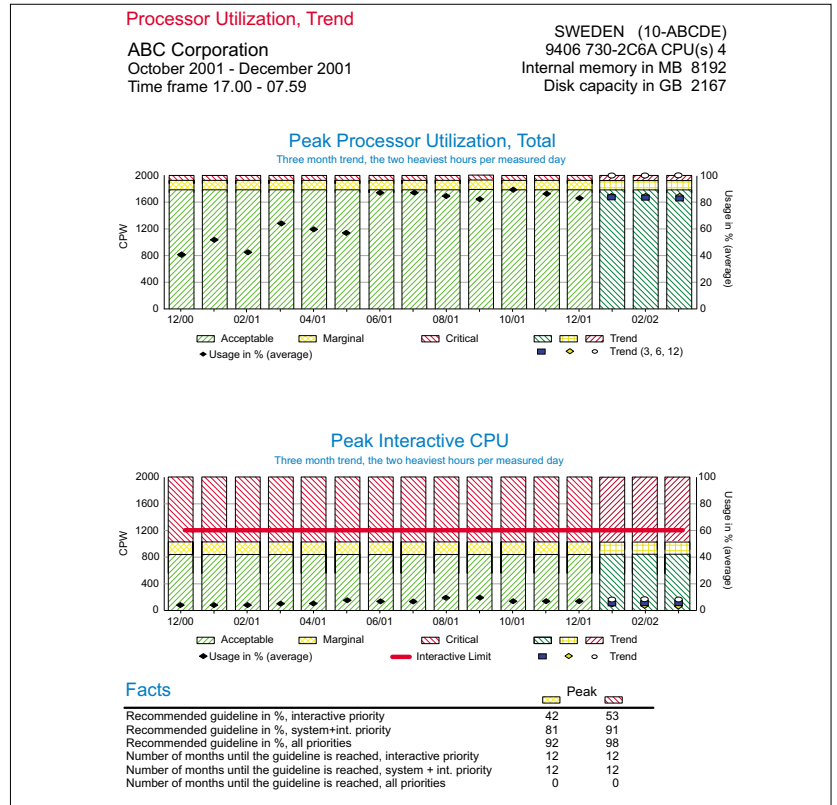
### The Monthly Profile, Report 650

The PM/400e Monthly Profile displays your system's weekly peak performance. Identifying peak loads helps you to determine the best time to schedule your work. This planning allows you to make more effective use of your system.

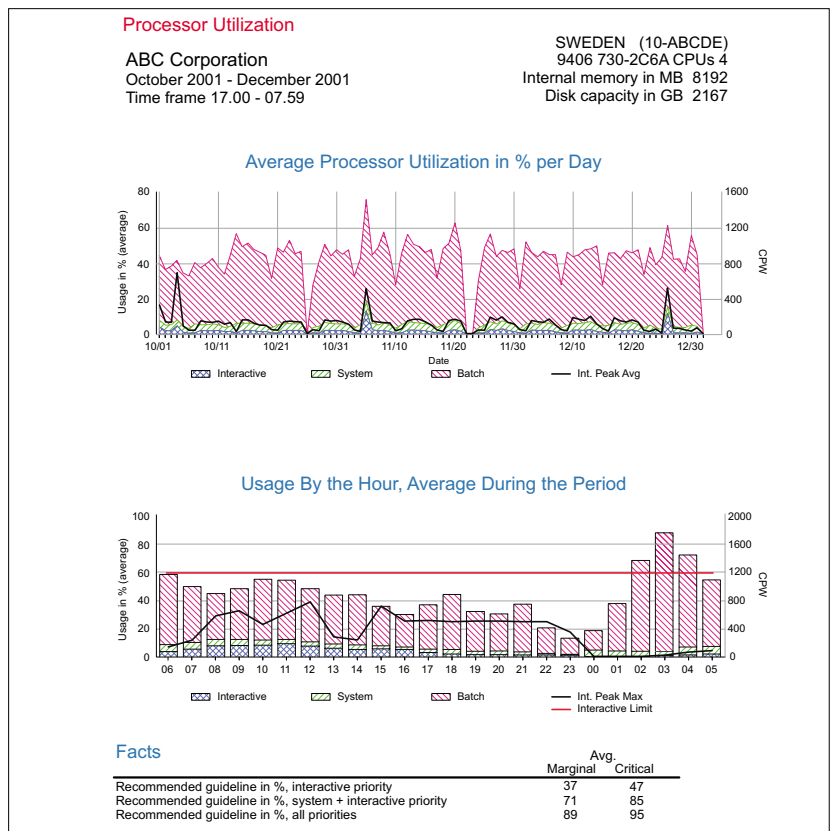
### The Daily Profile, Report 650

The PM/400e Daily Profile displays your system's peak demand day by day. This information allows you to effectively schedule jobs and address tuning to keep your system performing at its best.

The profiles that are generated by PM/400e are easy to understand, and IBM consultants are available if you need help.



Report 675



Report 650



*...by relieving you from any complicated tasks.*

## **Frequently Asked Questions**

### **How much space does PM/400 take on my AS/400?**

PM/400 uses less than 1% of your processor, and requires up to 58 MB of disk space, depending on hardware model. A default data collection interval of 15 minutes is assumed. Disk space requirements increase if you select smaller collection intervals. Activating PM/400 has little effect on your system's performance.

### **Is my system secure with PM/400e?**

All PM/400e collection sites are network-secure, and PM/400e transmits only non-proprietary performance data to IBM. The time of the transfer is completely under your control.

### **Is Performance Tools a prerequisite for PM/400e?**

PM/400e automates the continuous collection and management of performance data, freeing you of these routine tasks. It allows you to automatically receive growth and performance reports and graphs. These graphical reports can help you identify potential problems. Although the Performance Tools licensed program is not a prerequisite for using PM/400e, you can use it to further diagnose the areas PM/400e helped you identify.

### **When I activate PM/400, where is the data transmitted and how will it be used?**

PM/400 uses performance information and capacity information from your system. This data is system utilization information, performance information, and hardware configuration information. For detailed information on what is collected, see the Performance topic in the iSeries Information Center, which is available from the following web site: [www.ibm.com/eserver/iseries/infocenter](http://www.ibm.com/eserver/iseries/infocenter)

Once the data is collected, PM/400 processes the data and prepares it for transmission to IBM for future analysis and report generation.

**Within IBM**, the PM/400 data will be used to prepare the reports and graphs that are delivered as part of the PM/400e offering.

You agree that IBM may use and share the data collected by PM/400e ("Your Data") within the IBM enterprise without limitation, including for purposes of problem analysis, of assisting you with performance and capacity planning, of maintaining your existing and new business relationships with IBM, of notifying you of existing or projected resource constraints, and to assist us to enhance IBM products. You also agree that Your Data may be transferred to such entities in any location whether or not a member of the European Union.

You may authorize IBM to share Your Data with various third parties, including one or more Solution Providers and Business Partners, to make them aware of your performance and capacity demands, and to enable them to provide you with a higher level of service.

**Note:** As a customer, you would use a separate form to authorize your selected Solution Providers and/or Business Partners.

## **AS/400 Resources & Support**

Visit the *Performance Management/400 Web site* at:

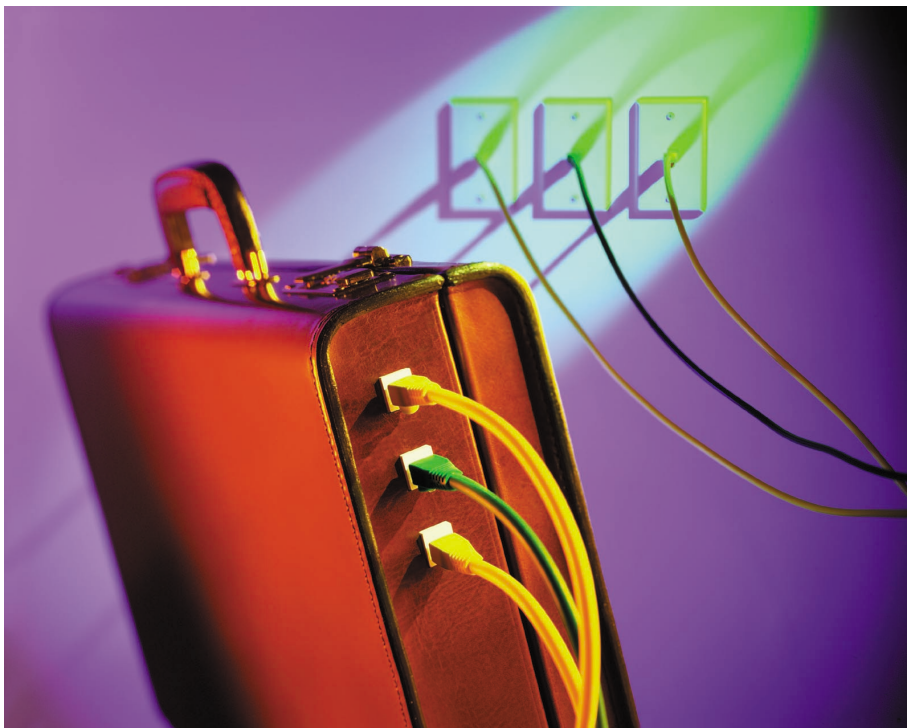
[www.ibm.com/eserver/iseries/pm400](http://www.ibm.com/eserver/iseries/pm400)

### **A simple start with PM/400e**

Because PM/400 is automated, you receive information about your system's capacity, CPU use, disk usage, and growth trends without having to carry out any complicated tasks. Beginning in V5R2, PM/400 data is automatically collected for you, which means that you can receive your reports sooner after you activate PM/400. You can use the automatic collection function on your V5R1 system with the appropriate OS/400 update (PTF).

If you want to transmit your data to IBM, use any of the following methods to start PM/400.

Select "G" for go at the PM/400 message after the initial program load. If you want to learn more about PM/400 before activating the program, select "I" instead. This option allows you to activate PM/400 at a later time.



Additionally, at any time you can activate PM/400 by typing CFGPM400 on the OS/400 command line, and then by following the prompts.

Beginning in V5R1 of the OS/400 operating system, you can use iSeries Navigator to start PM/400. To start PM/400, do the following:

1. In iSeries Navigator, expand the system on which you want to start PM/400.
2. Expand Configuration and Service.
3. Right-click Collection Services.
4. Select Performance Management/400.
5. Select Start.
6. Select your systems.
7. Click OK.

**For more information**

If you want more information about PM/400e or any special terms and conditions in your location, visit this web site:  
[www.ibm.com/eserver/series/pm400](http://www.ibm.com/eserver/series/pm400)  
or contact your local IBM representative or IBM Business Partner. The information that was previously contained in the Performance Management/400e book, SC41-5347, is now available from the iSeries Information Center web site or on the iSeries Information Center server CD-ROM that accompanies your system.



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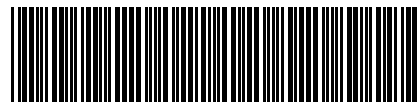
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<http://www.ibm.com/eserver/series>

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