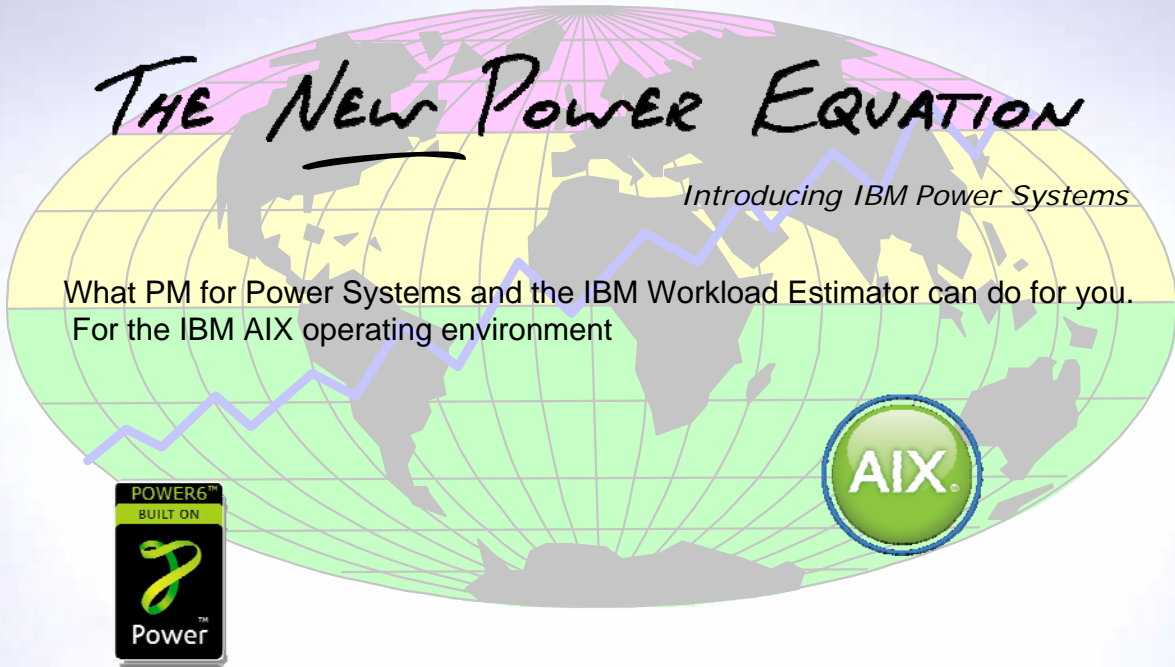




# THE NEW POWER EQUATION

*Introducing IBM Power Systems*

What PM for Power Systems and the IBM Workload Estimator can do for you.  
For the IBM AIX operating environment



PMPowerSystemsCustp012009.ppt

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This presentation summarizes the PM for Power Systems offering from a client perspective.

This presentation is from an AIX viewpoint. A separate presentation exists for the IBM i viewpoint

# Agenda

- Overview of PM for Power™ Systems offering: support for AIX®
  - (Formerly known as PM for System p)
    - What is it and what are the terms ?
    - How it works
    - Benefits
- Examples
  - Reports
  - Workload Estimator integration
- Availability by release and model
- Getting started
- Resources for PM for Power Systems



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This presentation is divided into **four** sections. These sections present a high level explanation of the offering and its features.

1. PM for Power Systems (AIX support) product overview and benefits
2. Report examples including integration of PM data with the IBM Workload Estimator to size upgrades
3. How to get started and
4. Resource available to provide you with more information



## IBM Performance Management for Power Systems - - What is it and what are the options?

- PM for Power Systems (AIX support): an offering to simplify your systems management by helping you plan for and manage the growth and performance of the IBM Power System family
  - Previously known as PM for System p
  - Supports AIX (Version 5.2 or later)
  - Note: PM for Power Systems also supports the IBM i operating system
- Two offerings for customers to choose from: (both available worldwide)
  - <http://www.ibm.com/systems/power/support/pm/> or <http://www.ibm.com/systems/p/support/pm/>
  - **No Charge service**..... A no additional charge option that provides web delivered interactive access to key performance and growth data plus a projection of remaining growth of the system or partition
    - System must be under IBM warranty or on an IBM hardware maintenance agreement to be eligible
  - **Full function service**..... An IBM Global Technology Services (billable) report set that provides multiple detail reports on an ongoing basis depicting the growth and performance of the system
    - Available either as a stand alone fee offering or as part of an IBM premium service offering like the IBM Enhanced Technical Support offering

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PM for Power Systems is an IBM offering that helps the customer plan for and manage the growth and performance of their system in a simplified way.

Support is provided for customers using the AIX operating system, Version 5.1 or later.

PM for Power Systems is available in both a no charge (for summary level interactive graphs) and a full function, detailed reports and graphs option for a nominal fee. It is a worldwide offering.

This presentation discusses both the No Charge and the Full Function option in more detail. The Full Function offering provides interactive access to your reported information on a daily basis....including the ability to 'tailor' your graphs (within limits) to the time period of interest.

## Features of PM for Power Systems



- Performance Data
  - Automatic collection and transfer of performance data to IBM
  - On Demand, secure access to your performance reports and graphs on the Internet
  - View, Print or Save report queries
- IBM Systems Workload Estimator (WLE)
  - Helps size upgrade requirements, server consolidations, or the system impact of adding a new workload
  - Click of the mouse loads all your historical PM data to the WLE server
  - No additional cost ...whether using either the PM for Power Systems no charge or billable full function option

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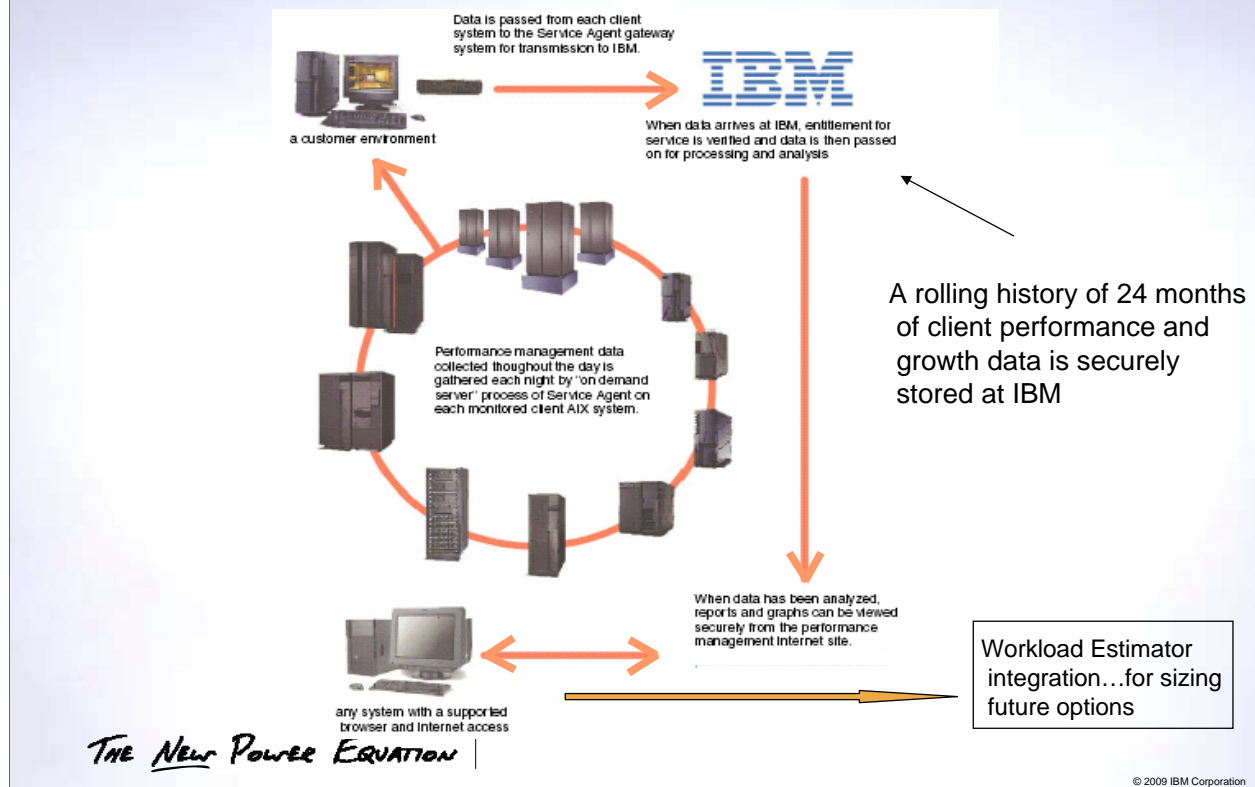
### Performance Data:

1. Once you have the required collector code installed on your system, the collection of performance data is automated and self-managing.
2. Customers can view their data On Demand at the PM website. You can review your performance data as often as you choose.

### IBM Systems Workload Estimator (WLE)

1. The IBM Systems Workload Estimator (WLE) is a browser based tool, which can help you size an upgrade or replacement system based on the utilization and growth of your current workloads. It can also be used to help you determine available capacity or needed capacity to accommodate server consolidations or the addition of other 'game changing' innovative applications to help you change the way you do business.
2. The Workload Estimator tool is available from the PM for Power System screens on the Internet at no additional cost and can be used as often as often as desired.
3. Your PM historical data is automatically loaded into WLE to calculate & project growth with a few simple mouse clicks.

## PM for Power Systems data and workflow



### Work flow:

1. Each monitored system will have a collection agent, Performance Management client code.
2. The collection of performance data is automated, self-managing.
3. The PM client code, executes the required scripts to collect the respective data and stores them on the local system.
4. The performance data is then uploaded daily from the system at a scheduled time, set by the customer via IBM Electronic Service Agent.™
5. IBM receives the data and automatically formats the raw data into reports, tables, and graphs that are easy to understand and interpret.
6. The computed data is then made available on the PM for Power Systems web site.
7. Customers then can view their data On Demand at the PM for Power Systems web site. You can review your performance data as often as you choose.
8. Customers can then integrate the collected historical data with the IBM Systems Workload Estimator to size needed upgrades or other utilization options.

### Additional:

- (i) Security - Your data is maintained at IBM, securely, according to IBM security and privacy guidelines. The data is encrypted and sent to a secure IBM site.
- (ii): In a HMC environment using AIX, Service Agent is a prerequisite on the HMC. Service Agent is not necessary on the LPARs; only the PM for Power Systems AIX collector code is necessary on each LPAR to be monitored..

In a non-HMC AIX environment, Service Agent is a prerequisite on each LPAR to be monitored along with the PM for Power Systems AIX collector code.

# Benefits of PM for Power Systems



## Helps you:

- Reduce the time that is spent by the System Administrator to collect and manage system performance data
- Forecast system resource growth based on existing workload trends
- Plan for and manage consistent service levels
- Maximize your return on current and future hardware investments
- Identify current and potential performance bottlenecks
- Maintain a history of performance data that is always available
- Easily size your next Power System server upgrade or replacement system
- Understand the impact of innovative software applications (e.g. IBM middleware like Domino® or WebSphere® or IP Telephony) on your system utilization

Simplified  
Systems  
Management

Realize  
Innovation

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1. Performance data is collected automatically by the PM tool and does not require the intervention of a system administrator to manage.
2. WLE assists by helping you proactively forecast your system growth
3. With WLE you can size peak workloads to help estimate the resources you require. With this information, during peak periods, you can proactively manage your system resources to maintain your expected service levels.
4. You can project what the resource constraints, if any, will be on systems if you find a need to add additional workloads on under utilized systems.
5. The graph reports of PM for Power Systems and projections, within WLE, provides vital information on current and potential performance bottlenecks
6. IBM stores all the performance data, this frees up valuable disk space on the customers side. If you have a performance problem, the IBM support specialist can review the archived data and identify when the problem started to occur.
7. Since these reports are generated daily, you have information to help identify if a particular process around a certain time is affecting the system. You don't need to wait for weeks before this is identified and this can be addressed immediately.
8. Performance data metrics can be reviewed at hourly, daily, weekly and monthly intervals.
9. Collectively all the reports and graphs together with WLE can assist and help guide you on an upgrade or replacement system or help you understand your system's capability to accommodate additional innovative software applications....either on your current configuration or help you understand what additional capacity would be needed to accommodate the application. This is done via the customer's option to integrate the PM for Power Systems data with the Workload Estimator any time they wish.



## PM for Power Systems reports - AIX examples

To log in and view your graphs once you are using PM for Power Systems:

<https://pmeserver.rochester.ibm.com>

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All clients receive a record for each of their partitions reporting data on the [Server Information page](#)

Actions	Company Name	IC	Serial Number	LPAR	Model	Shift Number	Operating System	Contract	Server Name	Last Transmission Date	Number of Configured CPUs	Peak Total CPU %	CPU Months to Constraint	Average Total CPU %	Peak Interactive CPU % (i5/OS)
	ABC Co.		10ABCDE	2	570	1	AIX		DevelopSys	2009-01-05	1.0	13.09		6.13	
	ABC Co.		10ABCDE	2	570	2	AIX		DevelopSys	2009-01-05	1.0	6.38		2.51	
	ABC Co.		10VWXYZ	2	570	1	AIX		ProductSys	2008-12-25	2.0	62.97		45.16	
	ABC Co.		10VWXYZ	2	570	2	AIX		ProductSys	2008-12-25	2.0	58.84		33.60	



Select the report icon on the left nav for the respective system or partition

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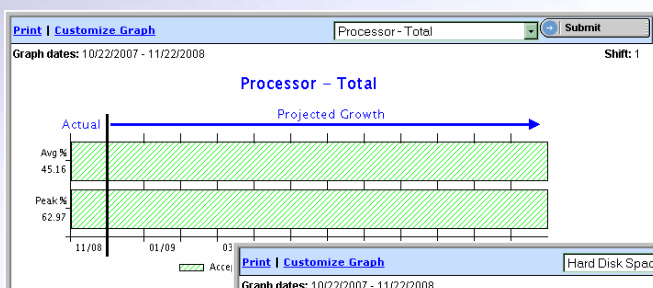
All PM for Power Systems users, whether subscribed to the no additional charge offering or the detailed report (billable) offering, receive the Server Information Page showing line items for 1<sup>st</sup> and 2<sup>nd</sup> shift workloads by partition.

From this page, clients may view reports, size upgrades, authorize a Business Partner to have access to their data, etc.

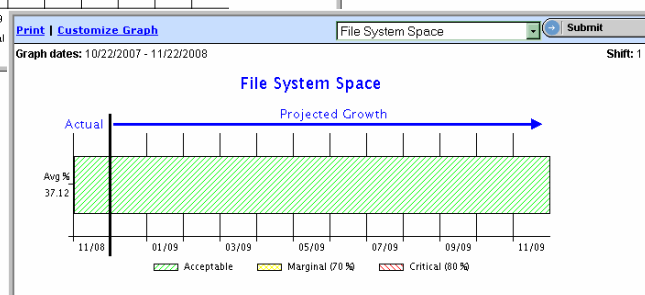
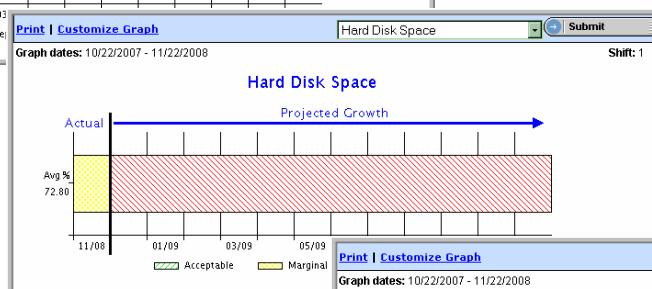




# Interactive Management Summary Graphs



The No Additional Charge graphs



This data is available for no additional charge if the system is under warranty or on an IBM Hardware Maintenance Agreement.

The individual graphs are accessed interactively by the user and are then printable as Individual graphs.

The user does have the ability to go 'backwards in time' to select the month of interest. (up to 24 mos)

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It shows the currently monthly utilization, the color for that month and then shows a 12 month projection. The color of the bar in a certain month is the projected status of that resource for that month.

Green means the resource usage will be in the acceptable range. Yellow means the resource usage is marginal and will need attention in the near future. Red means the resource usage is critical and needs immediate attention.

In this example, we see that the Peak CPU usage is acceptable currently and is projected to remain acceptable for the coming 12 months. Note that 'peak' usage is the average of the 2 highest hours for a shift.

The Hard Disk Space usage is currently marginal and projected to be critical in 1 month.



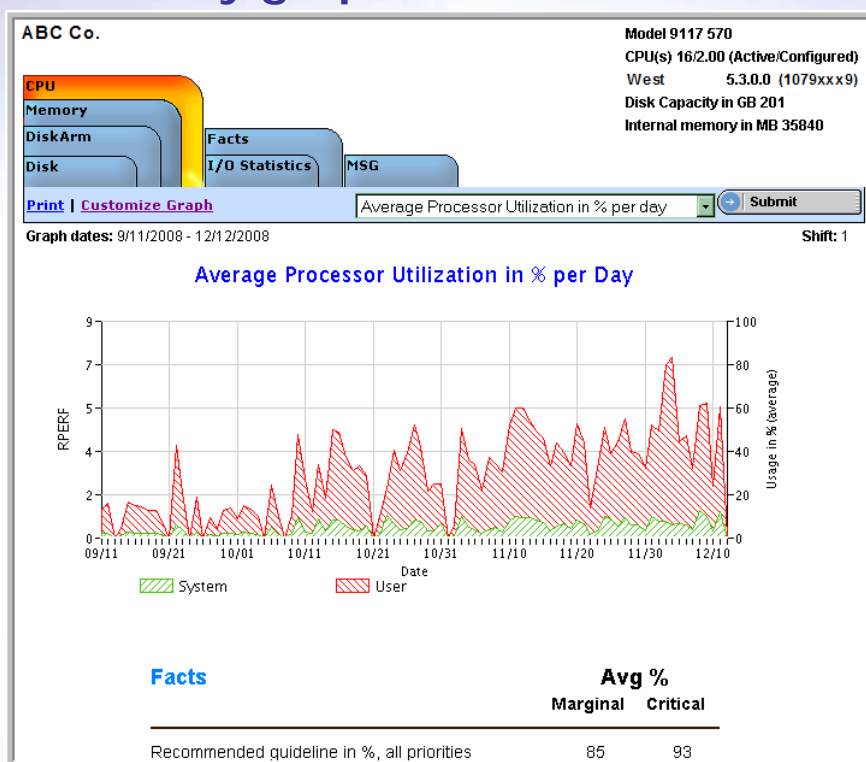
## Interactive graphing

- Detailed reports are available with the full function (fee) option of PM for Power Systems.
- You are able to view monthly, daily, and hourly level reports.
- You can customize a graph view down to a single day.
- The following graphs are examples of the reports that are available. You will notice that in many cases the performance guidelines are depicted on the graph.

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## AIX CPU daily graph



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This graph shows the average CPU usage for up to 93 days by shift. It shows:

- System CPU
- User CPU

If the left axis is labeled it will be in **rperfs**. If it is not labeled, it means that this particular model does not have an rperf rating.

The right axis will be percent of CPU usage based on the current configuration.

This view can be customized to fewer than 90 days by clicking the 'Customize Graph' link.

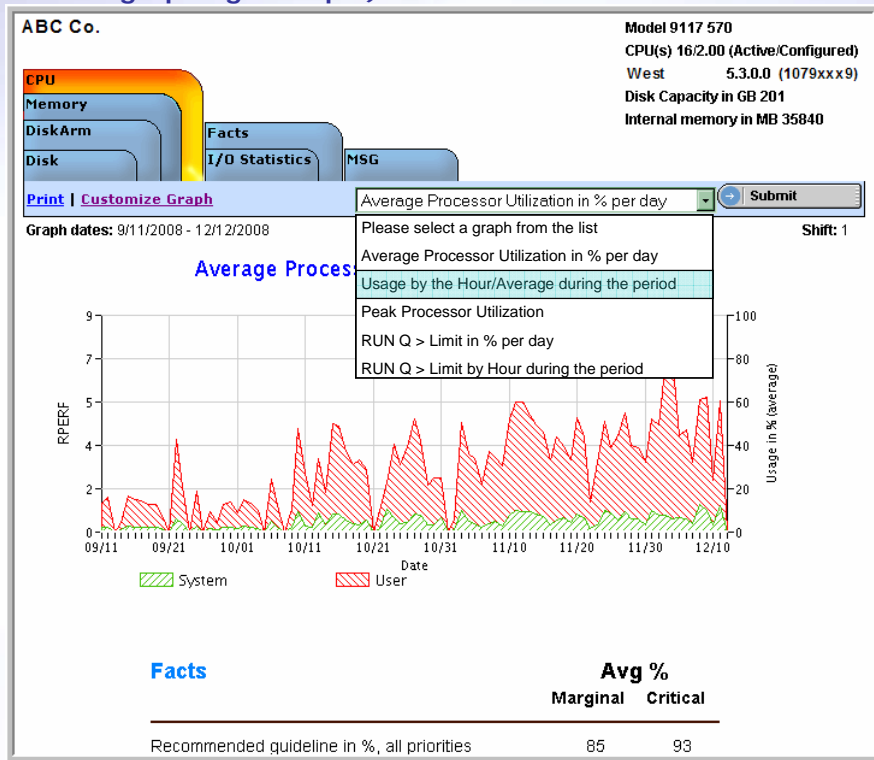
You can view other graphs by clicking the dropdown and selecting a new graph.

### FACTS

Recommended Guidelines are for the total CPU usage and they are based on the number of processors available to the server/LPAR.

# Selecting other views of the data

(interactive graphing example)



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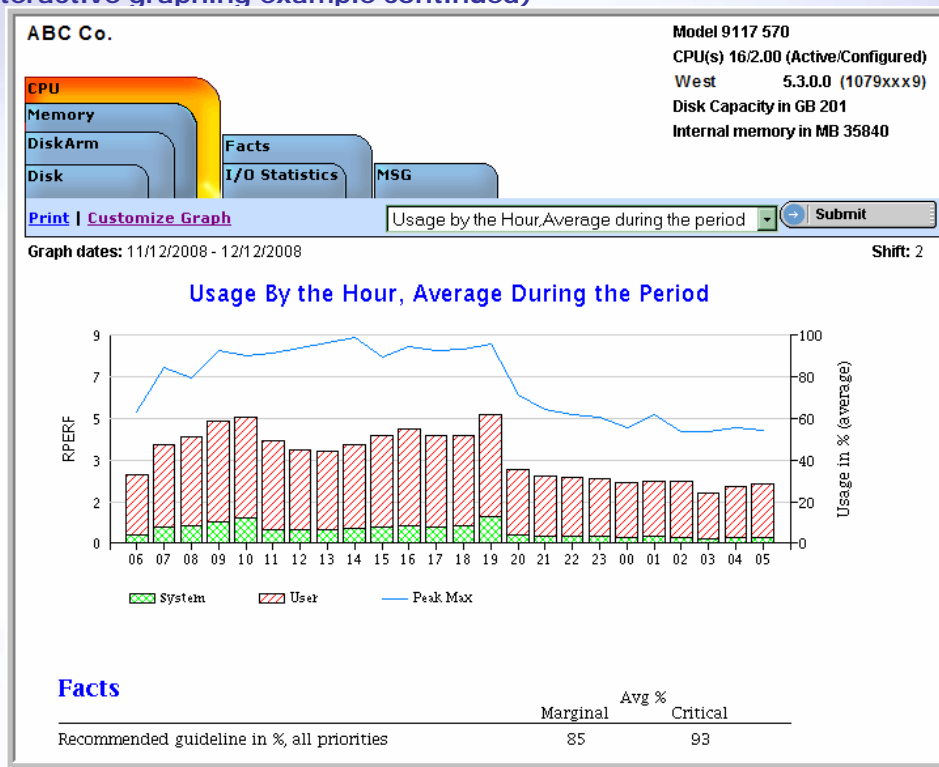
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To view the 'Usage by Hour', select that as the graph type in the dropdown, and click 'Submit'.

# AIX Usage by Hour – monthly view



(interactive graphing example continued)



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This graph shows the average CPU usage by hour for up to 30 days by shift. It shows:

- System CPU
- User CPU

If the left axis is labeled it will be in **rperfs**. If it is not labeled, it means that this particular model does not have an rperf rating.

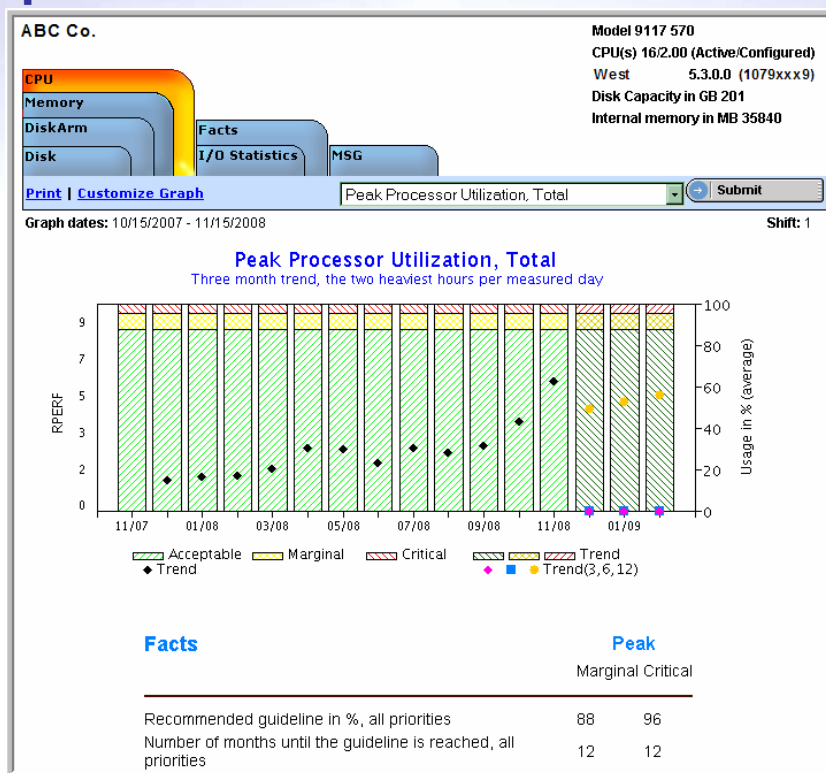
The right axis will be percent of CPU usage.

Not shown is the capability to view this same graph (or others) for any time frame desired over the last 24 months, providing the system or partition has been transmitting data. This is done by selected the days of interest from a 'calendar' screen.

## FACTS

Recommended Guidelines are for the total CPU usage and they are based on the number of processors available to the server/LPAR.

# Peak processor utilization



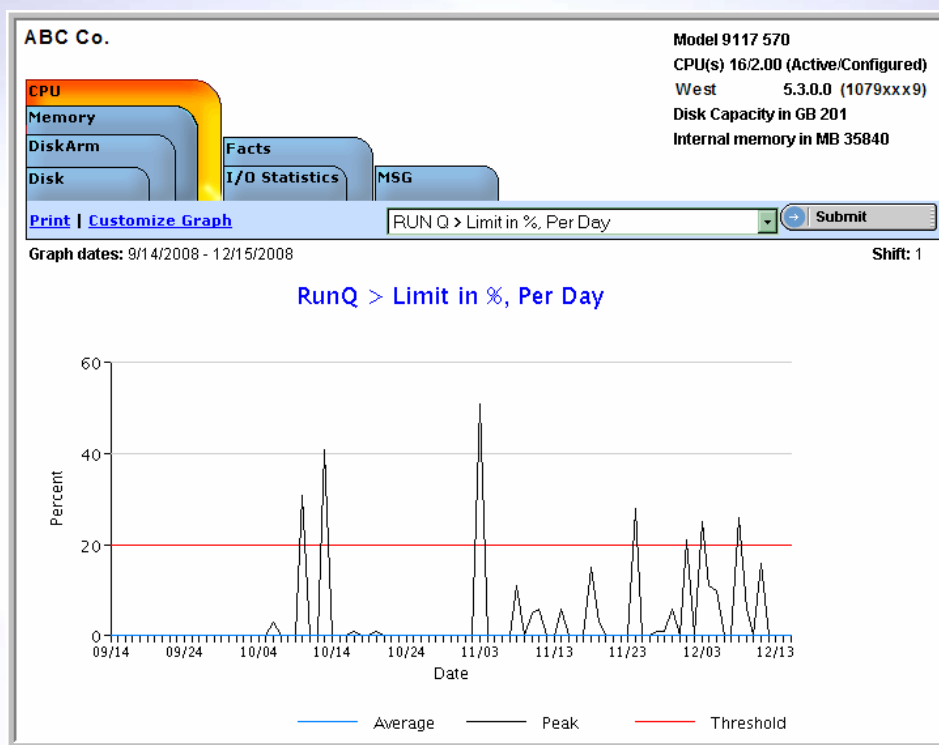
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PM for Power Systems will depict workload growth over time in rperfs, if the server has a published rperf rating.

The advantage of plotting rperfs is that it is a normalized unit of work independent of the resources allocated to the server/LPAR. This means that the black diamonds on the graph represent the workload trend independent of the resources allocated to the server/LPAR.

The height of the columns represent the CPU resource available in rperfs during the month.

# RUN Q > Limit, daily view



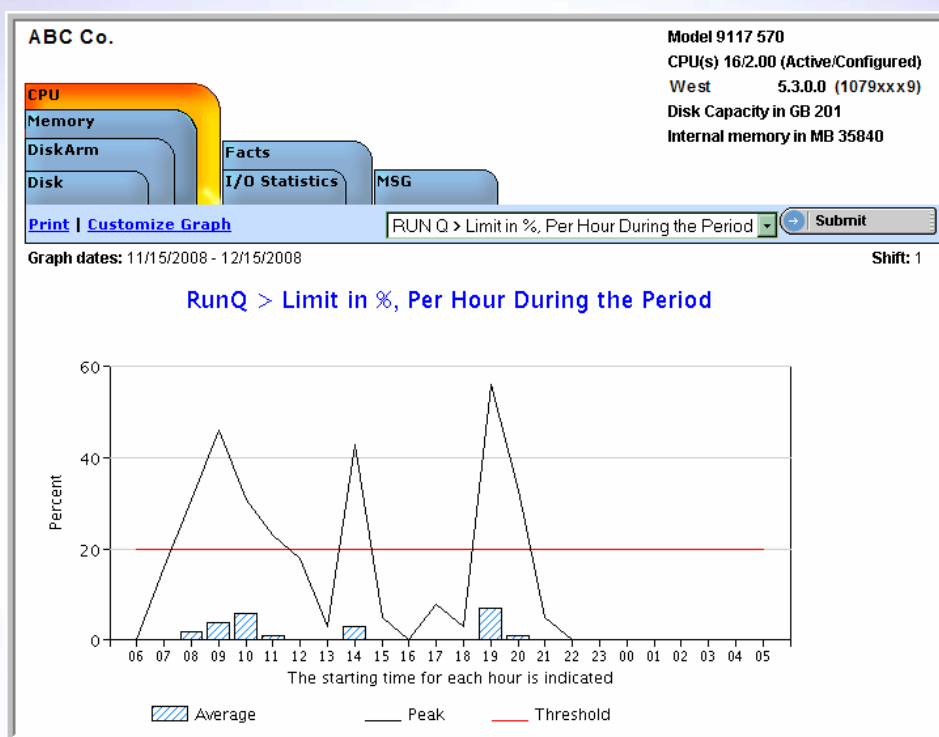
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This graphic shows the percentage of time that the RUNQ is greater than the Limit.

Run Q > Limit = Percentage of time run queue > than number of processors times 5.  
 Minimum value is 5. For partial processor LPARs (less than 1 processor), 5 is the value used for the limit.

The recommend threshold for Run Q > Limit is 20%. If the RUNQ > Limit percentage is consistently above 20%, then corrective action should be taken.

# RUN Q > Limit, hourly view



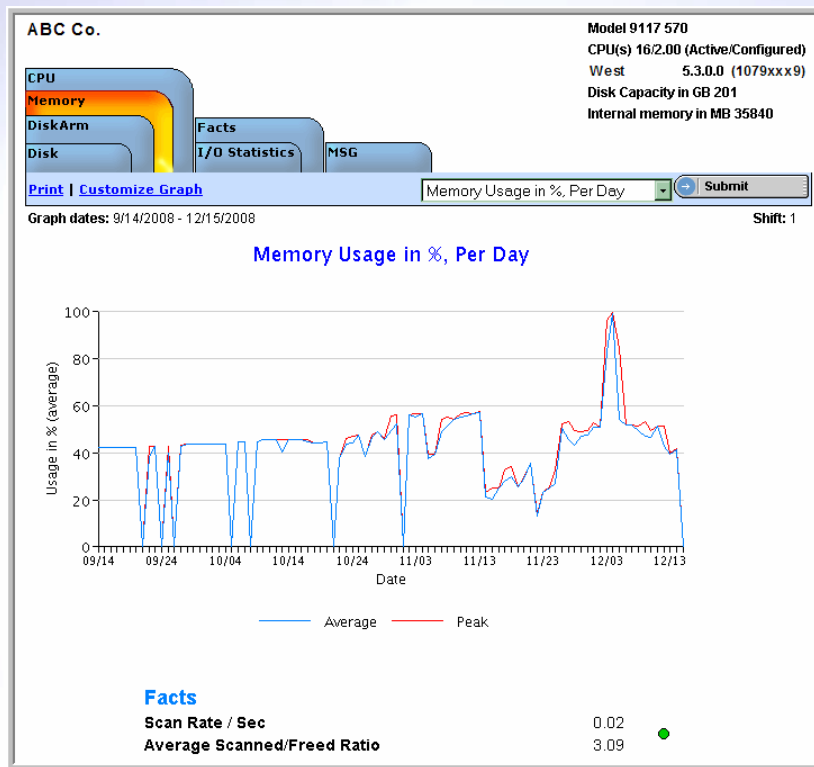
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This is the hourly profile for RUNQ > Limit, for the interval specified. If you have selected a single day, then this is the RUNQ > Limits profile by hour for that day.

The black line represents the highest RUNQ > Limit percentage for the hour during the period specified.



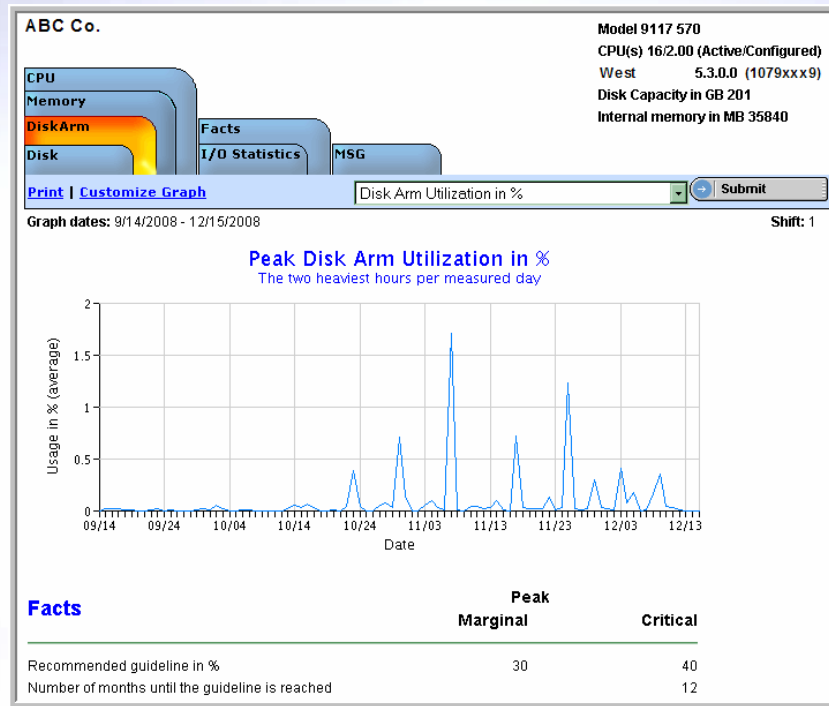
# Memory utilization per hour



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This depicts both the 'peak' and 'average' Memory utilization by hour.

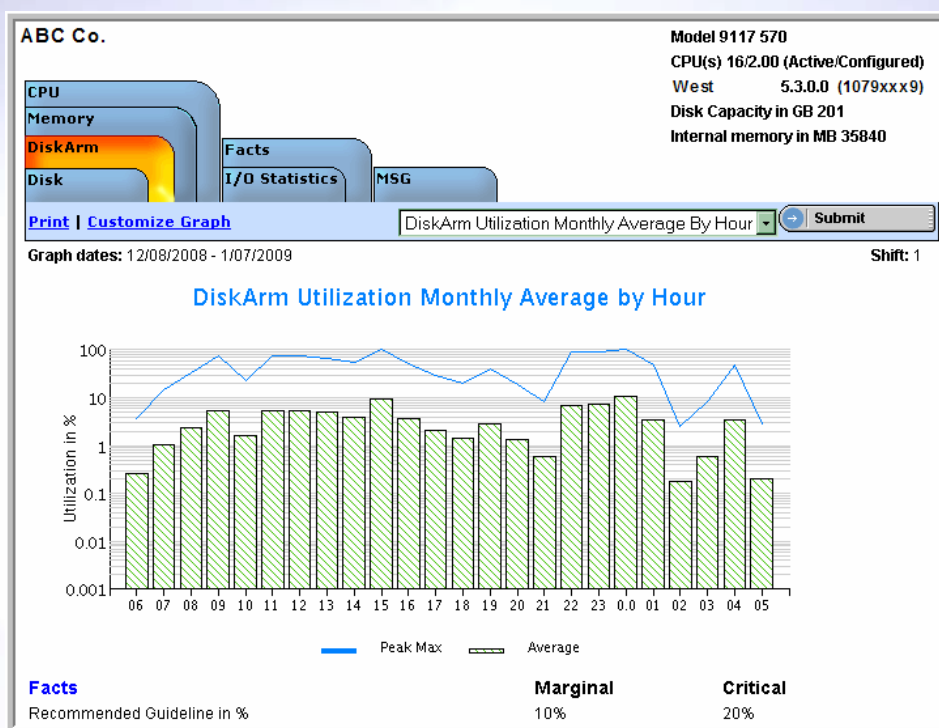
# Disk Arm – daily view



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This displays the average disk arm utilization over the period.  
Recommended Guidelines are: Marginal = 20%, and Critical = 25%

# Disk Arm – hourly average

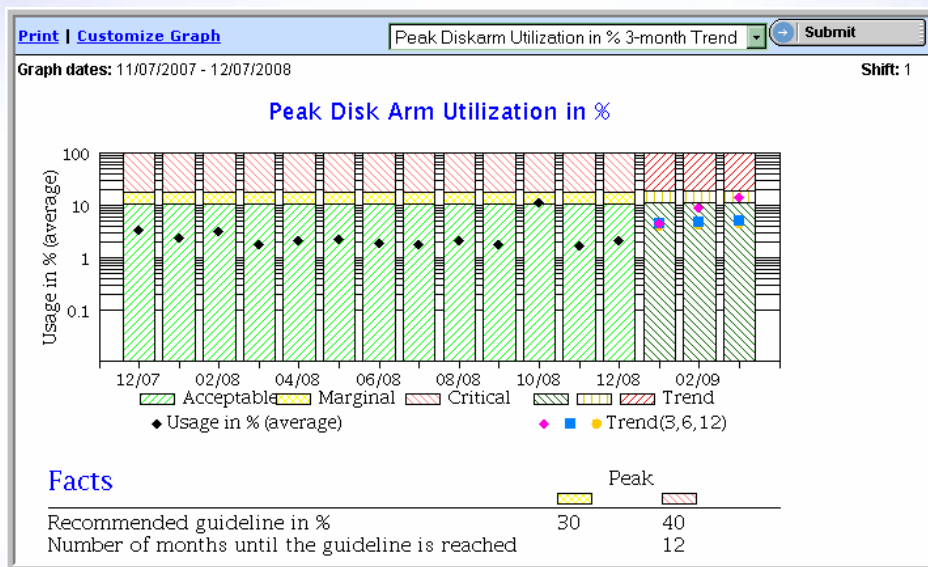


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This is the hourly disk arm utilization report.

Recommended guidelines are: Marginal = 20%, and Critical = 25%

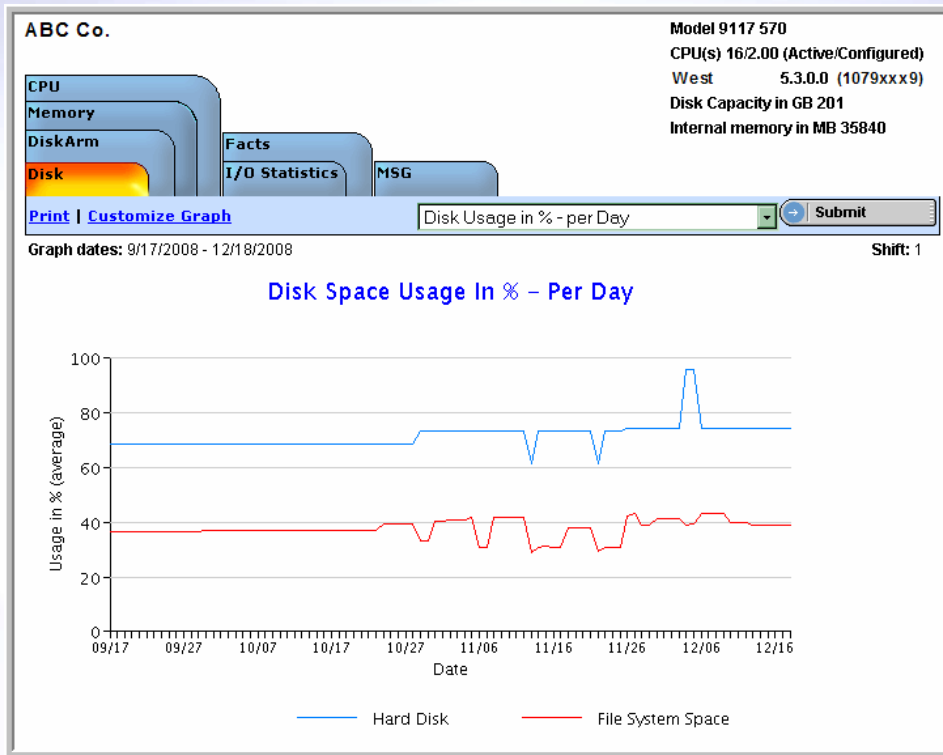
# Peak Arm utilization - trend



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This is a monthly view of disk arm utilization and depicts the trend for the disk arm utilization.

## Disk Space usage – daily (hard disk and file system)



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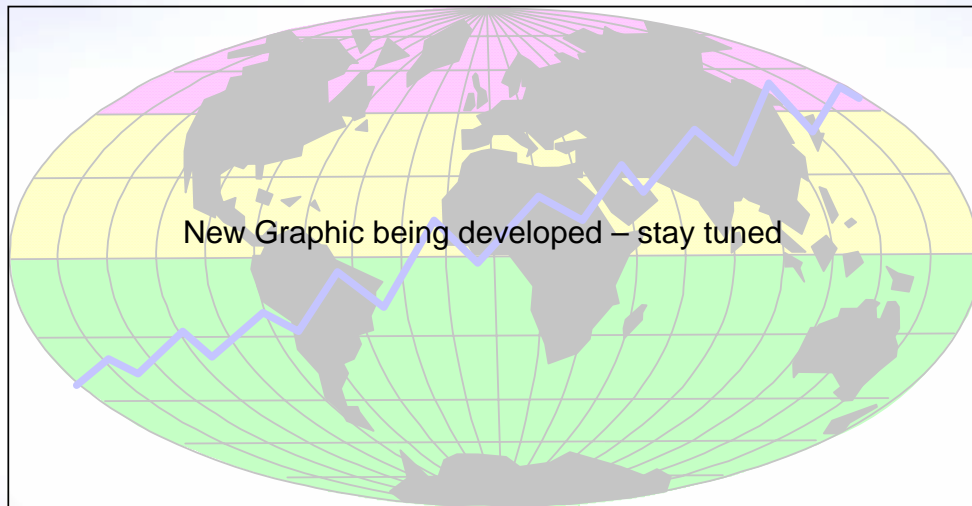
This graph depicts the disk space usage in a percentage for each date in the specified range.

It shows:

- Hard Disk usage
- File System usage – Note that this can be greater than 100%

**Guidelines for disk space usage are 75% for Marginal (yellow), and 85% for Critical (red).**

## Disk Space usage trend



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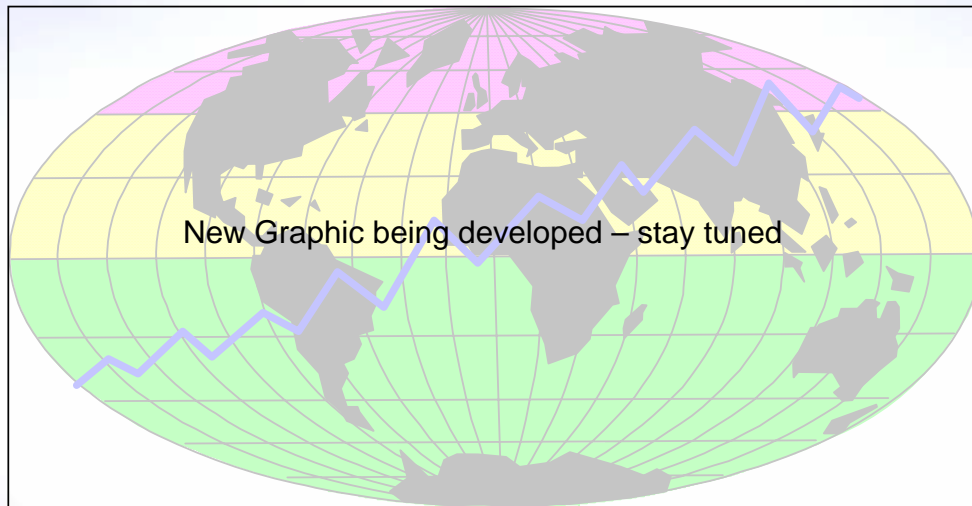
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Hard Disk usage trend in MB and 3 month projection.

The height of the columns indicates the capacity in MB for the indicated month.

**Guidelines for disk space usage are 75% for Marginal (yellow), and 85% for Critical (red).**

## File System usage trend



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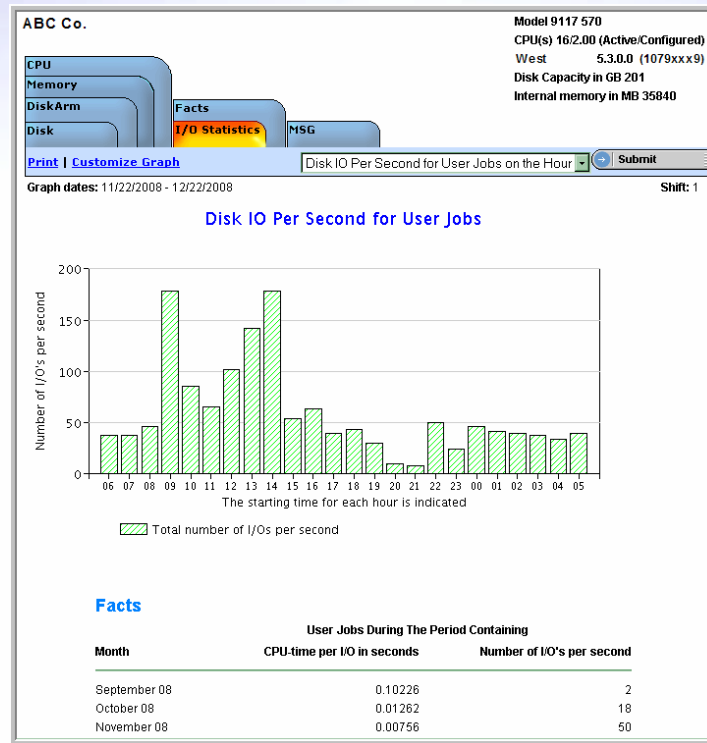
File System usage trend in MB and 3 month projection.

The height of the columns indicates the capacity in MB for the indicated month.

**Guidelines for File System usage are 75% for Marginal (yellow), and 85% for Critical (red).**



# Disk I/O rates for user jobs



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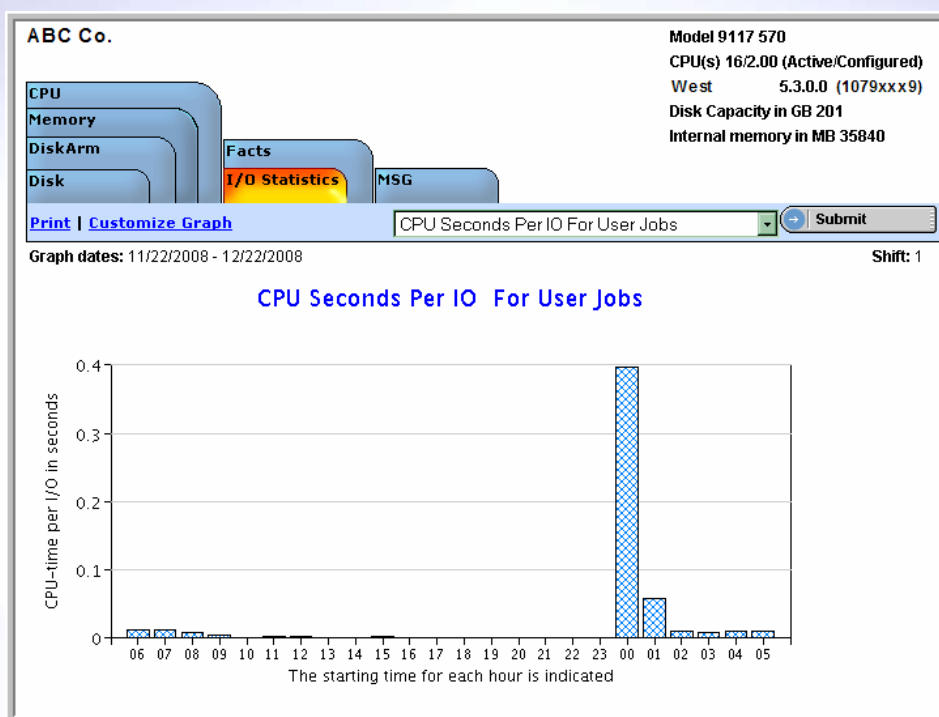
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Total I/O rates per sec. by hour of the day.





# CPU seconds per I/O for user jobs



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CPU usage per I/O by hour of the day.



## PM for Power System's AIX data integration with the IBM Systems Workload Estimator

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## Integration with IBM Systems Workload Estimator (WLE)

- **Additional value received when using PM for Power Systems:**
- **Clients may at any time electronically access the Workload Estimator to:**
  - Help size upgrade requirements, server consolidations, or the system impact of adding a new workload
- **Click of the mouse loads your historical PM data to the WLE server**
- **No additional cost ...whether using either the PM no charge or billable full function option**

*Simplified systems management*

*Sizing the addition of innovative software*

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1. The IBM Systems Workload Estimator (WLE) is a browser based tool, which can help you to size an upgrade or replacement system. This helps with simplifying your systems management planning.
2. WLE projects the most current Power System models that meet the capacity requirements within the resource utilization objectives.
3. The PM for Power Systems integration with WLE uses a mature and proven sizing engine for you to quickly size the next logical upgrade or replacement system for your customer based on the data being reported from PM for Power Systems.
4. Existing system utilization, performance, and growth data can be automatically uploaded into WLE to begin a sizing that is based on your workload characteristics.
5. Before using PM for Power Systems, your system must have first sent PM for Power Systems data to IBM
6. **Note:** WLE supports IBM POWER4™ and IBM POWER5™ and IBM POWER6™ servers only, since WLE is based on (relative performance) rPerf ratings which was introduced on IBM POWER4
7. The WLE can also be used to size a server consolidation by taking the workloads as represented by PM for Power Systems from multiple systems and combining them onto one server. Workloads as measured by PM for Power Systems from systems running the i operating system can be combined with the AIX workloads in the Workload Estimator to size a system capable of handling both operating systems. Additionally to help understand what other innovative applications your system could support, the WLE can be used to size the impact of adding another application...like IBM Domino® or WebSphere®.

### Additional Notes:

You can find the definition of rPerf and the performance ratings for eServer p5 and pSeries servers in the IBM eServer™ p5, pSeries, OpenPower™ and IBM RS/6000 Performance Report on the Web at:

[http://www-1.ibm.com/servers/eserver/pseries/hardware/system\\_perf.html](http://www-1.ibm.com/servers/eserver/pseries/hardware/system_perf.html)

More information on rPerf can be found at:

<http://www-1.ibm.com/servers/eserver/pseries/hardware/rperf.html>



## WLE helps you:

- **Project future needs for processor, memory, and disk**
- **Alter your planning horizon to suit your business needs**
- **Size LPAR's, server consolidation and adding new workloads**

**Note: 'Sizings' can be saved for future reference; recommendations can easily be converted to PDF format**

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1. WLE projects the most current Power Systems models that meet the capacity requirements within the resource utilization objectives.
2. WLE provides the following options when running the sizing:
  - The months of data to be used (provides flexibility to omit months where there were abnormal circumstances)
  - Alteration of planning horizon to suit your business needs
  - Flexibility to select whether to replace the existing system or upgrade the system (if available for upgrade)
  - Adjustable growth rate to reflect additional business plans
  - Add additional workloads such as Domino, Websphere or other applications
3. Additional functions exist to help you size for logical partitions (LPARs) and server consolidation, as well as add new workloads.
4. Additional workloads can be added for Domino, Websphere Commerce, Websphere Application Server, Web Serving (HTTP server), traditional workloads, Linux partitions, i partitions, etc.
5. It is also possible to run Workload Estimator as a stand-alone product and use standard workloads or size the workloads manually.

# WLE Definition Window



IBM Systems Workload Estimator

## PM #1

PM Workload Definition

Workload selection | **Workload definition** | Help/Tutorials

→ PM #1

→ User options      → Reset this workload      ↓ Save this workload  
→ Refresh this workload      → Edit workload name  
→ Modify intervals

Partition: **ProductSys**, AIX - 5.3, LPAR Shared Processor Capped

1. **System Information:** 60 weeks of data available. Most recent entry: 2009-01-04

Company Name:	ABC Co.
Serial:	10VWXY22
Model:	p5-570-911 7/570H
Feature:	N/A
System CPU:	90.7 % of 8.55 RPERF
Number of Cores:	2.0
Operating System:	AIX - 5.3
Memory:	8,192 MB installed
Disk Group Info:	

Group	Busy (%)	Units	Used (GB)	Total (GB)
ASP1	1,928	6	710	990

2. **Growth Information:**

Months to Grow:       Memory Growth Matches:

Total System CPU:  RPERF/Month       (Grow Independently)

Memory:  MB/Month       (Grow Independently)

**Disk Group Growth Info:**

Group Name	Storage Used(GB)	Inferred Disk Arm I/O's Consumed	Read Ops	Read IOSize (bytes)	Write Ops	Write IOSize (bytes)
ASP-001	-234.48	0.00	N/A	N/A	N/A	N/A
ASP1	-21.09	-2.15	N/A	N/A	N/A	N/A

3. Select a Virtual IO Server to provide **Virtual Ethernet** support:

4. Select a Virtual IO Server to provide **Virtual SCSI** support:

Back      Advanced Growth Options  
Detailed Data      Continue

To load your historical PM data into the WLE, simply select the 'size next upgrade' option when viewing your Graphs from the Server Information Page

All of your data will automatically be loaded for you into the WLE.

Some of the key information to take note from this screen shot is;

1. System CPU with rPerf rating:

This is the relative rPerf for an LPAR

- Disk group information:
- Starting with v2006.2 of Workload Estimator you can have **multiple disk groups** assigned to a system.
- The growth information of each individual disk group is shown with growth information parameters that WLE uses.

2. Months to Grow:

- This field is used to set the projection horizon of growth scenario.
- WLE uses this value to project current utilization values for an appropriate time into the future.

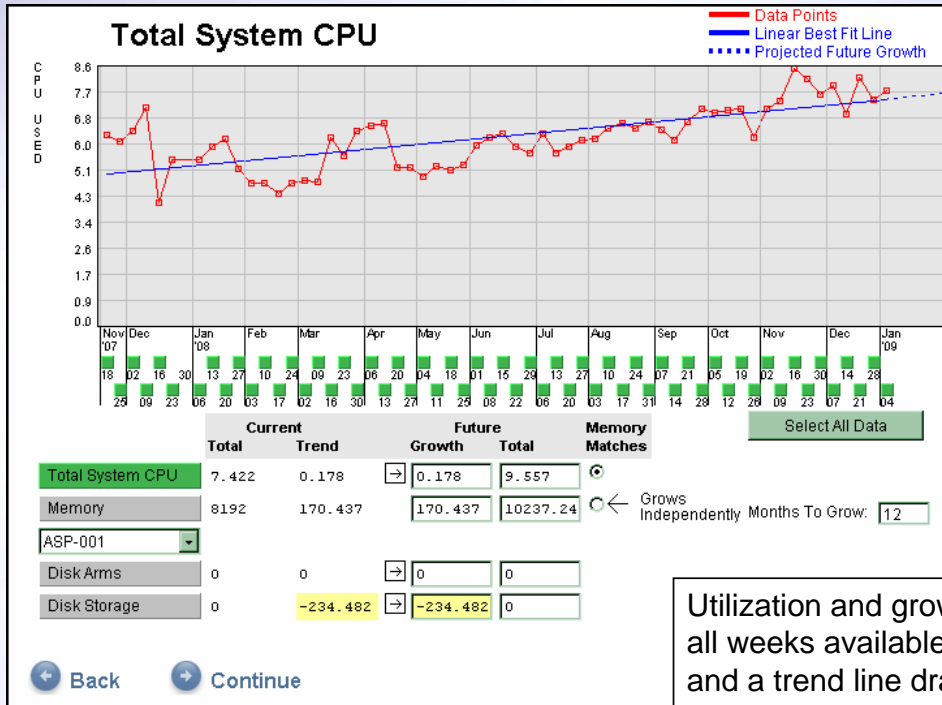
3. Memory Growth Matches:

- The memory growth value can be calculated to mimic the growth relationship of the resources corresponding to the checkbox selected.
- If the bottom **Grow Independently** checkbox is chosen, you can adjust the memory growth to any value.
- Memory is grown at the same rate as the Total System CPU value, by default.

5. The **Advanced Growth Options**. This is discussed in more detail later.

6. Up to 60 weeks (14 months) of data are passed to WLE.

# WLE Advanced Growth Options – All weeks



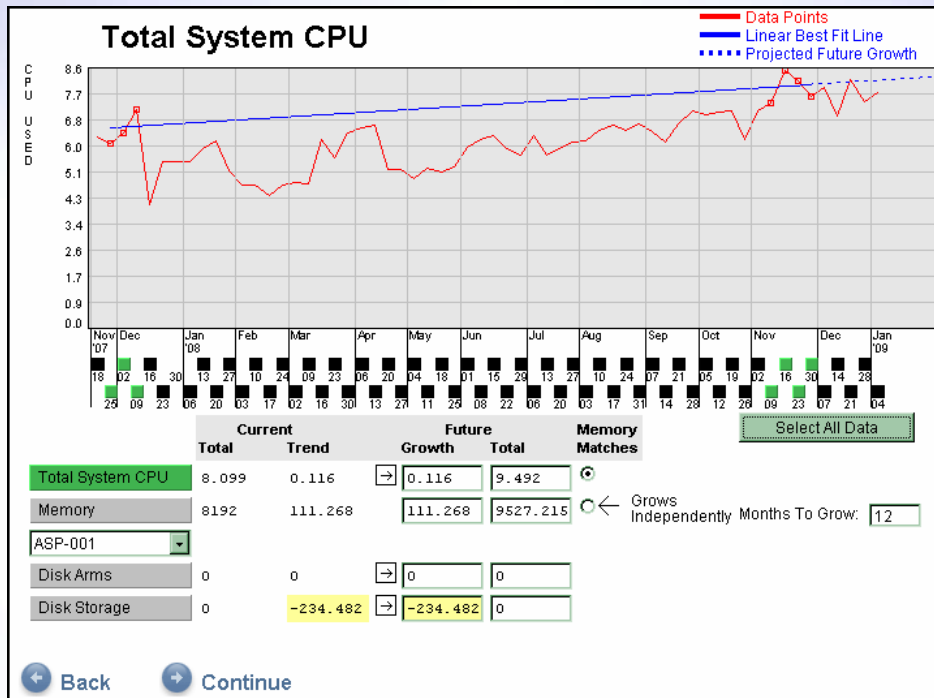
Utilization and growth data for all weeks available is loaded and a trend line drawn by the Workload Estimator for use in sizing

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1. The growth percentages which are calculated and projected in this section are used to consider the growth of your current system.
2. The calculation is projected for the additional months into the future from the last known data point available.
3. The graphs are projected on data that is computed up to a maximum of 60 weeks.
4. A key feature to understand in Advanced Growth Options is *weeks to include or exclude*.
  - This feature is depicted by the little green blocks underneath the projected graph, circled in red.
  - Each green square is represented by a weeks worth of data.
  - The exact metrics of this data is accessible from the PM Workload definition window shown in a later slide; see Select **Detailed Data**.
5. This allows you to remove data that is not fairly represented (holiday peaks, system upgrades or change controls, etc.) from your system performance history before investigating future growth.
6. The “grey buttons” towards the bottom half of the slide represent the utilization for each respective resource indicated in the “box”.
  - To work with memory or disk projections you are required to click on the appropriate “grey buttons”, at the bottom of the graph, representing the resource you require.
  - The values shown in **Future Growth** can be adjusted to suit your projections requirements and this will re-calculate the projections accordingly.

# Accommodating Seasonal Peaks



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In this example we have chosen to do a peak to peak or annual sizing. We have included 3 or 4 weeks of data for each peak cycle.

# WLE Proposed Solution – Peak weeks



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- With taking only the peak workloads into account the **Immediate Solution** is a 520 8203 E4A with 2 cores. It would be 54% utilized.
- The **Growth Solution** (which in our example was for 12 months) with the current workload trends recommends a 520 8203 E4A with 2 cores and it would be 67% utilized based on the current growth rate.
- At this point we can click the **Save this Workload** link to save this workload as an XML file.
- You can generate a Adobe Acrobat Portable Document Format (PDF) of the solution. This PDF can then be presented to management and used accordingly in your business justification or plans.

## Additional Notes:

### 1. Number of Cores:

- The number of processor cores dedicated to the environment represented by a set of data. In an LPAR environment, this number represents the number of processor cores that have been assigned to the partition.





## PM for Power Systems availability

### Operating Systems

- Support is provided for the AIX operating environment
  - all currently supported releases (V5.2 and later as of October 20, 2008)
    - subject to change as the older releases go to 'non support' status
  - for non-support release of 5.1, PM for Power Systems is offered on a 'as-is' basis

### Systems hardware

- Support is provided for all systems models that the above currently supported releases run on
  - support for hardware for non-supported release of 5.1 is provided on an as-is basis

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## Getting started

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# Getting started with PM for Power Systems

- **To learn more about the release support for the new POWER6 servers, visit:**  
<http://www.ibm.com/systems/power/support/pm/> (or see previous slide)
  - Also see this site for a description of the No Charge and Billable Services and how to get started.
- **3 easy steps:**
  - Install and configure IBM Electronic Service Agent (provides a connection to IBM for the PM for Power Systems AIX data to flow)
  - Download and install PM for Power Systems AIX collector code (client code)
  - Build groups for viewing
    - Once you have transmitted data from a system or partition the first time, IBM will send you a 'registration' key for each system or partition. Use that key to 'register' your systems to specialized groups for viewing

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1. IBM Electronic Service Agent is a prerequisite for PM for Power Systems when working with the AIX operating system. Service Agent is the transport mechanism used to transfer data from the customer's network to IBM.
2. Service Agent is only installed on the HMC. In an environment with no HMC, Service Agent needs to be installed on the respective server to perform the gateway function between the customer site and IBM.
3. You are required to install the respective PM client (collector) code on the managed partitions. PM for Power Systems AIX and i operating systems. These are the instructions when working in the AIX operating system environment.
4. You will need to complete PM for Power Systems registration process which entails associating the registration keys (that IBM sends to you when your system or partition first transmits data) to a 'group' for subsequent viewing.

#### Additional Notes:

- (i) IBM machines that are eligible for maintenance contract can obtain and install Service Agent programming code at no additional charge. However, you must ensure that this task is complete before you install the PM for Power Systems client code for AIX.
- (ii): In a HMC environment using AIX, Service Agent is a prerequisite on the HMC. Service Agent is not necessary on the LPARs; only the PM for Power Systems AIX collector code is necessary on each LPAR to be monitored..

In a non-HMC AIX environment, Service Agent is a prerequisite on each LPAR to be monitored along with the PM for Power Systems AIX collector code.



# Login page to access your reports

<https://pmeserver.rochester.ibm.com/PMiSeriesInternet/comboview/loginPage.jsp>

### Performance Management Login

Please select user login type,  
Then enter Userid and Password:

- Customers login with:
  - Machine Serial
  - Enterprise View ID
- Customers login with:
  - Web ID
- Business Partners login with:
  - Web ID
- IBM Employees login with:
  - Intranet ID

Login ID:

Password:  [Forgot password](#)

#### Help Text

Please enter machine serial or enterprise view id, IBM Web ID, or IBM Intranet ID along with the password, to view your data.

If you are a customer and cannot remember your password, click the "Forgot Password" link.

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PM for Power Systems users access their graphs by logging in with their Web ID and password at the URL shown.

## Welcome Page

### Welcome to the Performance Management web pages.

- PM for System p has been migrated to the common Performance Management infrastructure.
- Existing users will still be able to access their group (account), and are no longer required to contact IBM to maintain their group or groups. All users will be able to:
  - **Create a group.** A group is a collection of servers (system/LPAR) that is associated with your login ID. You can have multiple groups based on your business needs.
  - **Add servers (system/LPAR) to the group.** Using the server information and registration key/password that was sent to you when the data was first received by IBM, you can add servers to a group.
- **If you are a first time user,** when you click the 'Continue' button, you will be taken to the 'Create Group' screen for initial setup of a group. When a group has been created, you will be taken to the Add Server page in order to add servers to the group.
- **If you are an existing user,** you will be taken to the 'Select Group' screen, or to your default group Server Information page.

 Continue

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## Creating a group

### Create Group of Servers for Account

\* Group Name:  [\[Help\]](#)

\* Group Description:  [\[Help\]](#)

Owner Name:

Owner User ID:  [\[Help\]](#)

Authorized Additional Users:

1.  [\[Help\]](#) WebID: User1@mycompany.com

2.  [\[Help\]](#) WebID: User2@mycompany.com

\* - required fields

### Create Group of Servers for Account

\* Group Name:  [\[Help\]](#)

\* Group Description:  [\[Help\]](#)

Owner Name:

Owner User ID:  [\[Help\]](#)

Authorized Additional Users:

1.  [\[Help\]](#) WebID: User1@mycompany.com

2.  [\[Help\]](#) WebID: User2@mycompany.com

\* - required fields

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One of the features of PM for Power Systems is that you are able to create 'Groups of Servers'. A group is a collection of servers/LPARs based on some your business requirements. For example, you might have groups that are based on business regions.

When you create a group, you are the owner of that group. You can authorize 2 additional users to the group. The authorized users will only be able to view the contents of the group.

# You return to the Server Information page



The screenshot shows the IBM Server Information page for 'MyNewCompanyWest'. At the top, there is a navigation bar with links for Home, Products, Services & solutions, Support & downloads, and My account. Below this, there are tabs for Server Information and Manage Groups. The main heading is 'Server Information for MyNewCompanyWest'. Below the heading, there are four buttons: 'Add Server', 'Remove Server', 'Size Next Upgrade', and 'Sign out'. The 'Add Server' button is circled in red. Below the buttons, there is a table with columns for Actions, Company Name, IC, Serial Number, LPAR, Model, Shift Number, Operating System, Contract, Server Name, Last Transmission Date, Number of Configured CPUs, Peak Total CPU %, CPU Months to Constraint, Average Total CPU %, and Peak Interactive CPU % (i5/OS). The table contains four rows of server data.

Actions	Company Name	IC	Serial Number	LPAR	Model	Shift Number	Operating System	Contract	Server Name	Last Transmission Date	Number of Configured CPUs	Peak Total CPU %	CPU Months to Constraint	Average Total CPU %	Peak Interactive CPU % (i5/OS)
	ABC Co.		10ABCDE	2	570	1	AIX		DevelopSys	2009-01-05	1.0	13.09		6.13	
	ABC Co.		10ABCDE	2	570	2	AIX		DevelopSys	2009-01-05	1.0	6.38		2.51	
	ABC Co.		10WXYZ	2	570	1	AIX		ProductSys	2008-12-25	2.0	62.97		45.16	
	ABC Co.		10WXYZ	2	570	2	AIX		ProductSys	2008-12-25	2.0	58.84		33.60	

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To add additional servers to the group of interest, click the 'Add Server' button.

## Specify the Server/LPAR information



The screenshot shows the IBM registration interface. At the top, there is a navigation bar with the IBM logo, a search box, and links for 'United States [change]' and 'Terms of use'. Below this is a secondary navigation bar with links for 'Home', 'Products', 'Services & solutions', 'Support & downloads', and 'My account'. The main content area is titled 'Please input server information' and contains two required fields: '\* Serial Number:' with the value '1079xxxx' and '\* Registration key:' with the value 'xxxxxxxx'. A note explains that the serial number and registration key/password were sent in the password letter. A link 'here' is provided for forgotten registration keys. At the bottom of the form are 'Back', 'Cancel', and 'Next' buttons. The footer includes 'About IBM', 'Privacy', and 'Contact' links.

Registration letter should contain all the information needed on this page.





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When creating a group, you will need to enter the 'registration key' and other information you received as part of the letter received from IBM when your system or partition firsts transmits. Once all of the information is filled in, click on the 'Next' button.



## Action ICON definition

-  • Access the 'interactive graphing' capability of PM. This is used for both the 'no additional charge' as well as the detailed fee report option. In the case of the detailed option, you can access individual graphs and modify the viewing range down to 1 day if necessary.
-  • Access the transmission history for this system. You can quickly see if there is a problem with the data not being sent.
-  • Authorize a business partner to view reports
-  • Access the contact information for the server or LPAR

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Once you have built your groups for viewing, you will see the systems associated with the group on what is called the Server Information page. These are the 'Action' icons that appear on the Server Information page (SIP).



## Resources for PM for Power Systems

- Home page for PM for Power Systems  
<http://www.ibm.com/systems/power/support/pm/>
- IBM Redbook: SG24-7122-01, A Systems Management Guide to Performance Management for i and p systems.  
[http://www.redbooks.ibm.com/redbooks/pdfs/sg247122.pdf#Graphs\\_charts\\_and\\_online\\_reports\\_](http://www.redbooks.ibm.com/redbooks/pdfs/sg247122.pdf#Graphs_charts_and_online_reports_)
- IBM Electronic Service Agent web site:
  - <http://www.ibm.com/support/electronic>
- To view your AIX graphs when using PM for Power Systems
  - <https://pmeserver.rochester.ibm.com>

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For more information, please visit the following web sites.

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