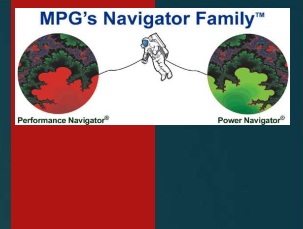


Understanding The Impact of Change In A Complex World...

A.k.a.

How To Understand The Impact Of Changes To Your System

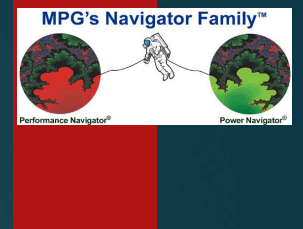


www.mpginc.com

dmewmaw@mpginc.com

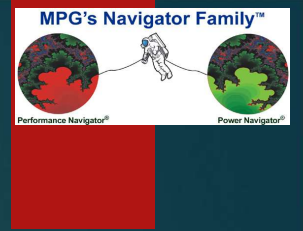
PH-303.939.9648 (x126)

What You Will See Today



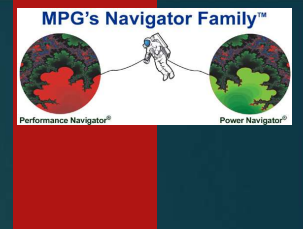
- ▶ MPG's Powerful Before vs After Functionality
- ▶ How To Manage Your File Systems With Before vs After Techniques
 - ▶ Great for IBMi sys admins that are now using PowerNav to manage their AIX servers!

Quick Audience Poll



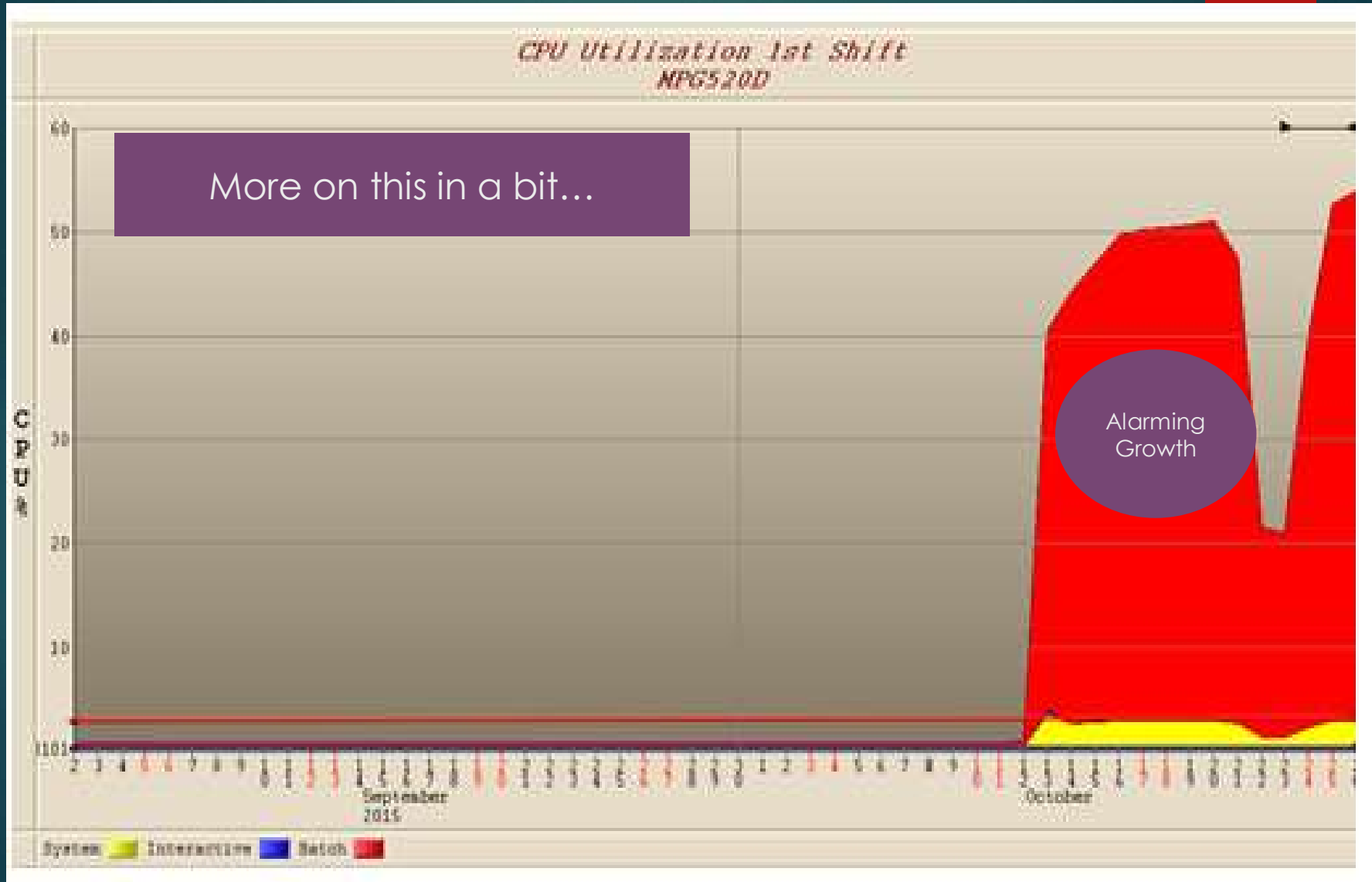
- ▶ What Platform(s) Do You Support?

Definition of Change

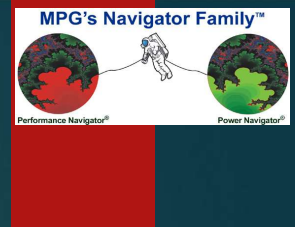


- ▶ Application Changes
- ▶ System Changes (OS Upgrades / PTFs)
- ▶ Tuning Changes
- ▶ Hardware Changes (Capacity Planning Upgrades)
- ▶ Network Changes
- ▶ And There Is One More Type...

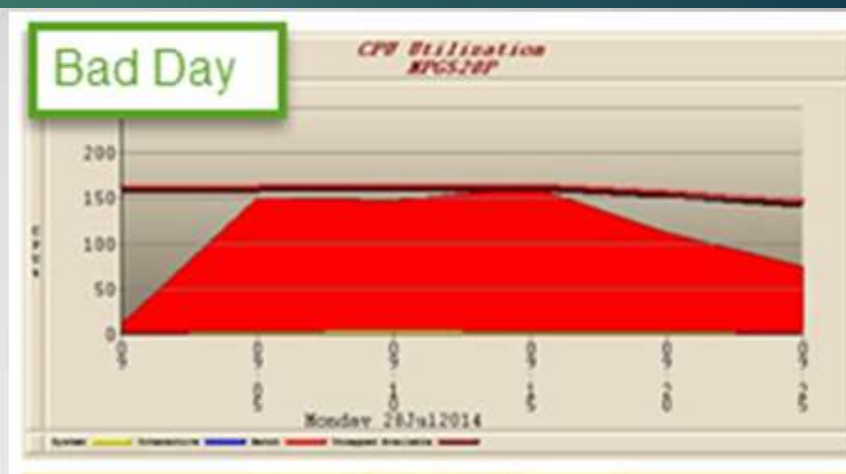
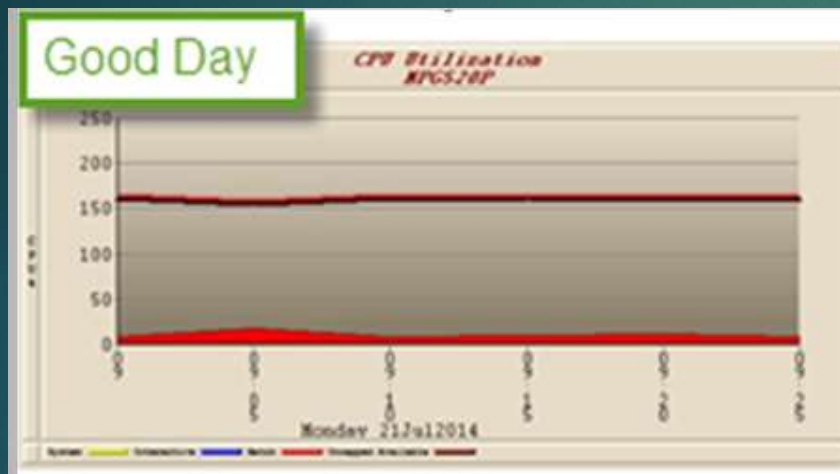
Introducing The Concept: Discovering A "Change"



What The Heck Happened!?!



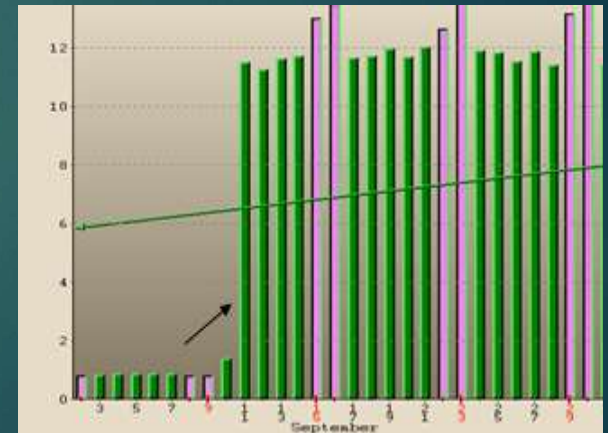
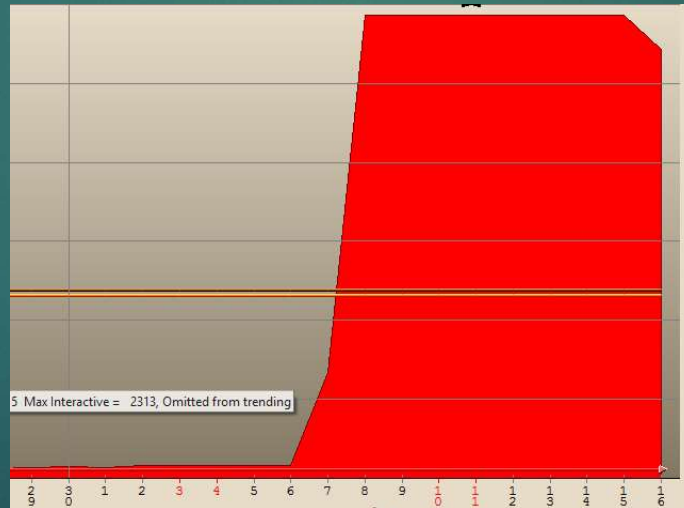
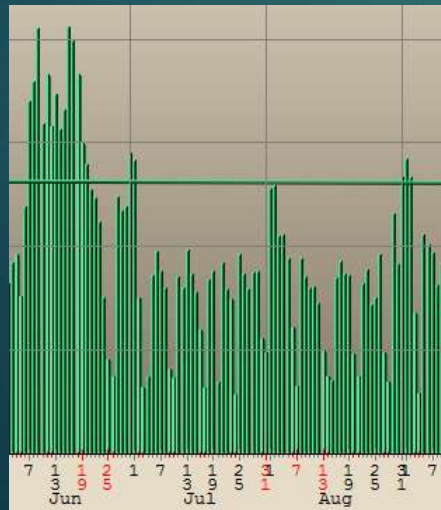
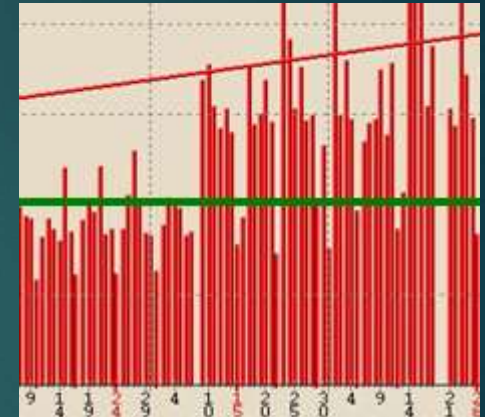
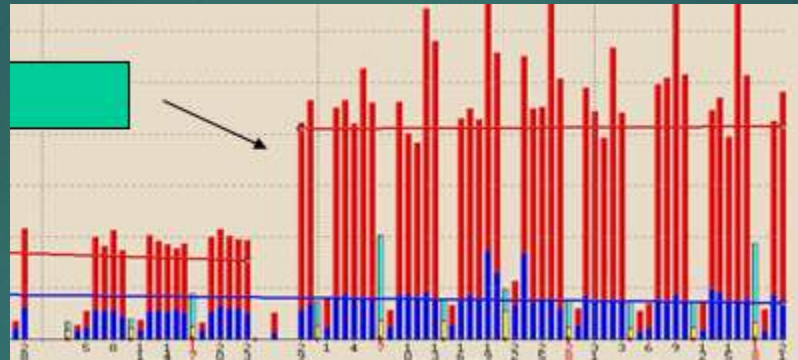
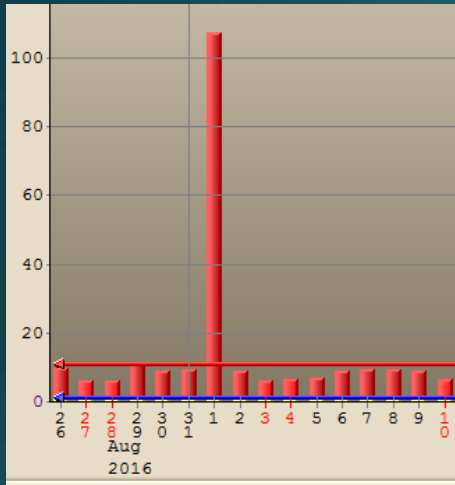
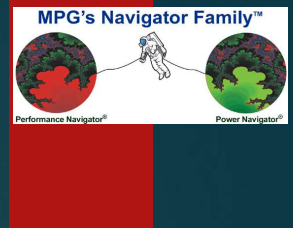
- Quite often, you are given the task to figure out what's different between two periods



- This session will show you how valuable it is to compare performance metrics between good days and bad days

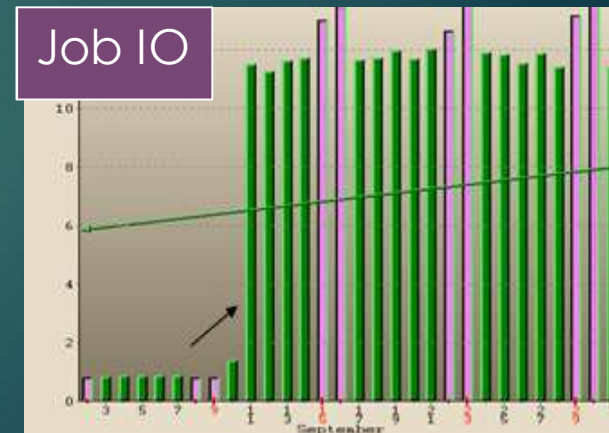
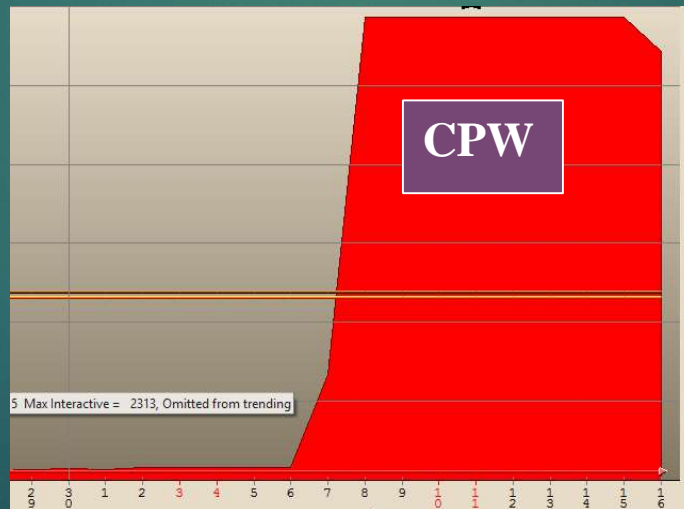
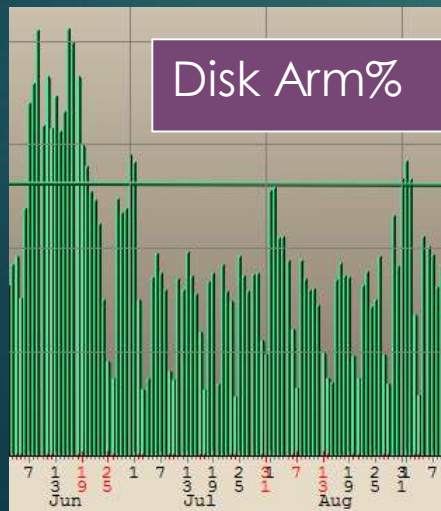
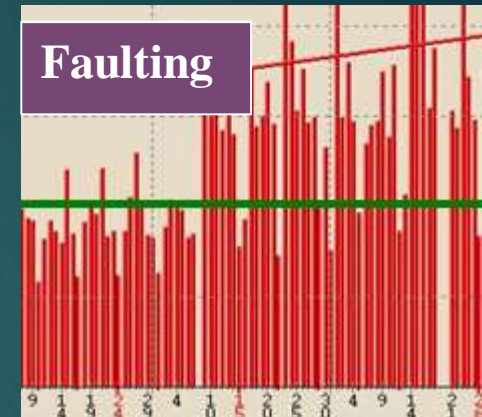
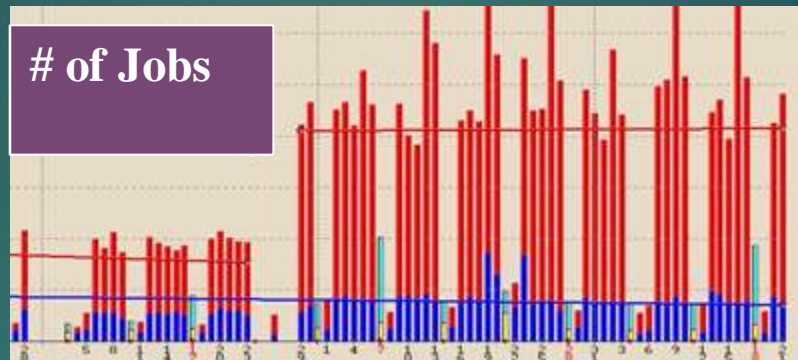
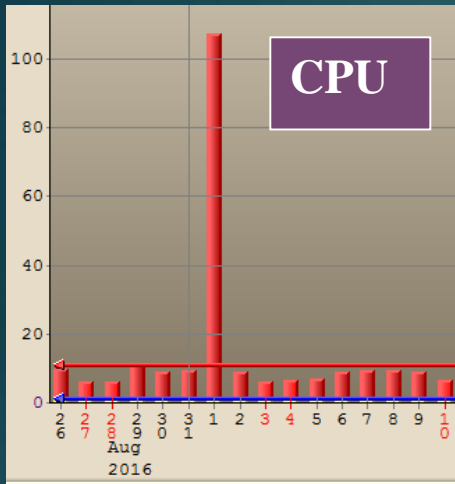
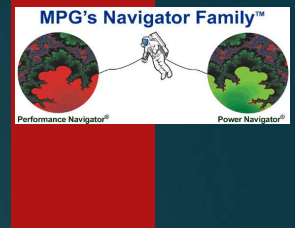
A Good System Admin Will Measure Core Performance Metrics By Date

You will know the exact date something changed in your environment

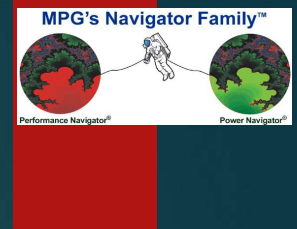


A Good System Admin Will Measure Core Performance Metrics By Date

You will know the exact date something changed in your environment



Some Bold Questions

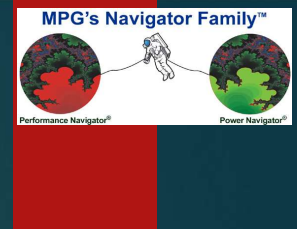


- ▶ Do you do structured monthly / weekly / daily performance reporting?
- ▶ When systems issues occur, Have you ever used this phrase to management?

“I have a feeling (insert theory here) this is going on”

One thing I've learned...Management wants you to know what's **exactly** going on – No more theories...or having a feeling

The Most Important Questions



- ▶ Do you measure the impact of new functionality **BEFORE** it goes live? (i.e. new order entry module)
- ▶ Do you measure the impact of new functionality **AFTER** it goes live? (i.e. new order entry module)
- After this session, I'm confident your mindset / processes will change forever...

Real Life In The Trenches Question 1



“CPU jumped up yesterday – What’s Different?”

Real Life In The Trenches Question 2



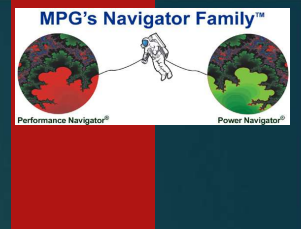
After a hardware change...“Did the upgrade make a difference?”

Real Life In The Trenches Question 3



“We did a major application upgrade in January and I have a feeling the upgrade affected my CPU negatively...What can I do?”

Three Techniques To Easily Answer The Questions



Day vs. Day Analysis (All intervals, 8am – 5pm...)

Multiple Period Analysis

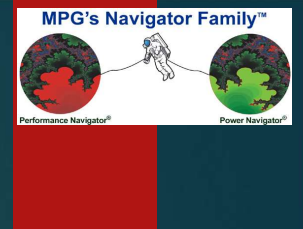
(Last month vs this month, last week vs this week..)

Month vs Month Analysis

(Monthly Resource Consumption Analysis Comparisons)

Day vs Day Comparisons

As System Admins, we will do many types of comparisons...

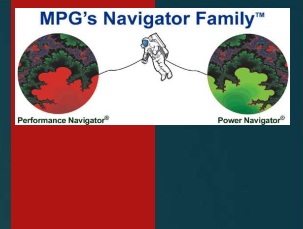


- Comparing a good day vs a bad day
- This “month end” processing vs last month processing
- Baseline Data Metric Comparisons (CPU, Disk, Memory)
Before / After Analysis after any known change
- Size of Library Today vs 6 Months Ago
- Black Friday This Year vs Black Friday Last Year
- And so on...

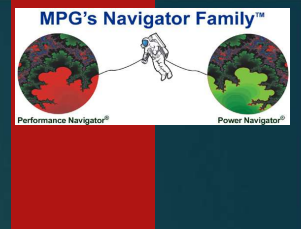
The Question We Get Asked Most Often...

The Before vs After reporting is amazing, but...

How do I set the before vs after dates????



The Key Is Setting The Before Vs. After Dates...



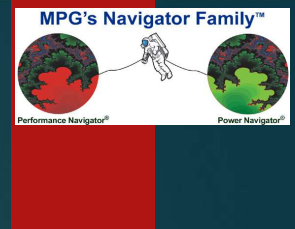
There are 3 ways to set the Before vs After Dates

1. Automatic Selection (Via any graph on the X axis)
 - a) "You are looking at the dates"
 - b) You use the menu options to "set" the dates

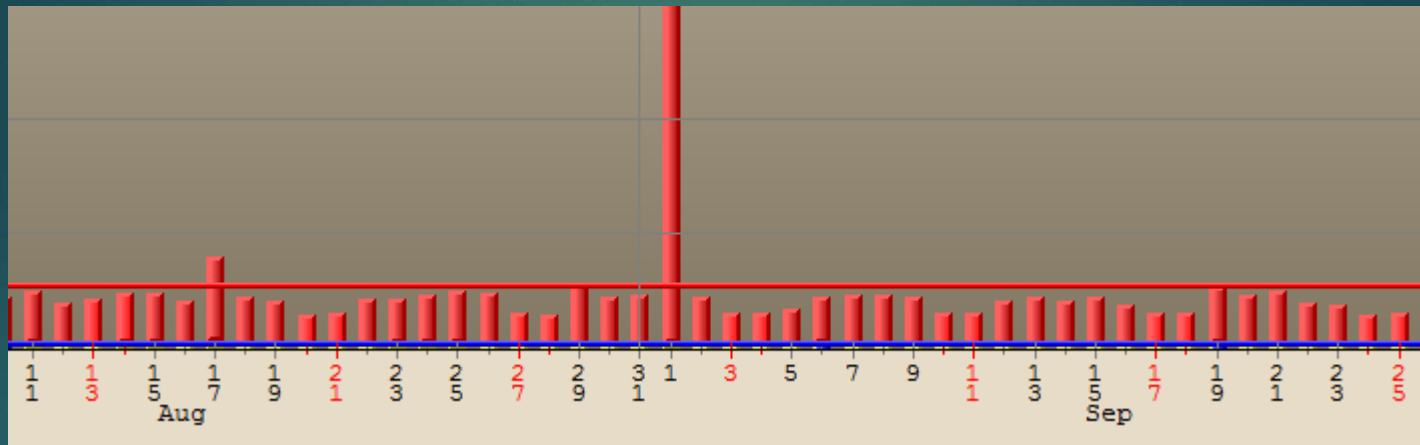


2. Manual Selection – Via a new before vs after calendar menu option
3. EDIT / System Option Dates – Before vs After Dates Tab

Before Vs. After Dates...Automatic Selection (X Axis)



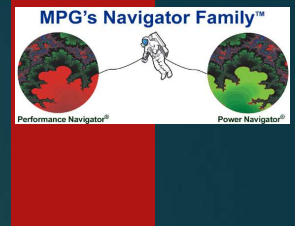
- 1) First, we set the **BEFORE** date
(Via right clicking on ANY historical graph at the DATE Level)



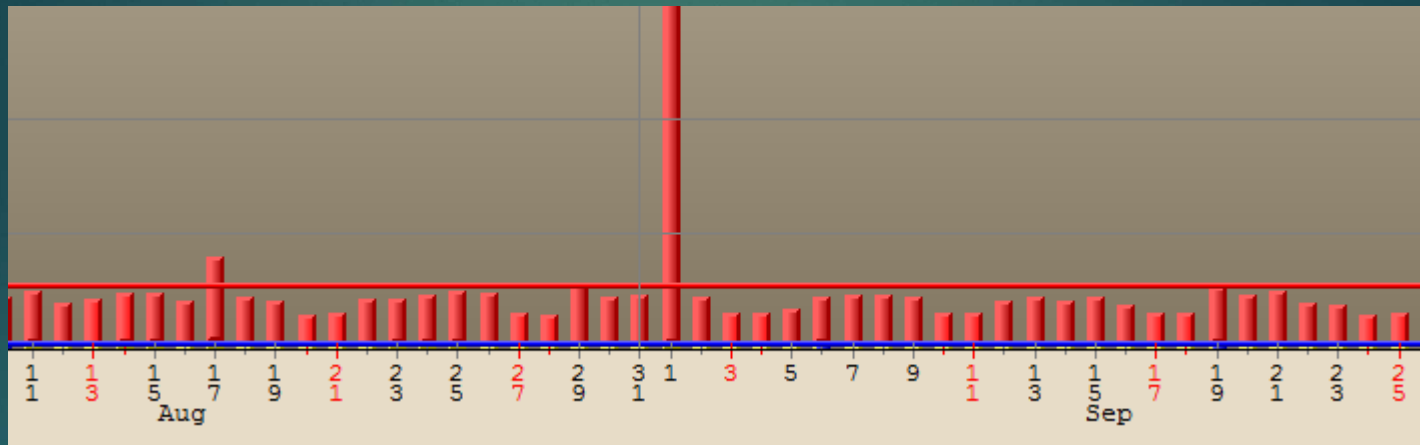
by Date

What If/Average Day 'From' & 'To'	Drill >
Before Date	Set 31Aug16 to >
After Date	Compare Before vs After Dates: 31Aug16 to 1Sep16 >
	Start Trends Here

Before Vs. After Dates...Automatic Selection (X Axis)



- 2) Next, we set the **AFTER** date
(Via right clicking on ANY historical graph at the DATE Level)



by Date

What If/Average Day 'From' & 'To'	Drill >
Before Date	Set 1Sep16 to >
After Date	Compare Before vs After Dates: 31Aug16 to 1Sep16 >
	Start Trends Here

Before Vs. After Dates...Automatic Selection (Manual Process)

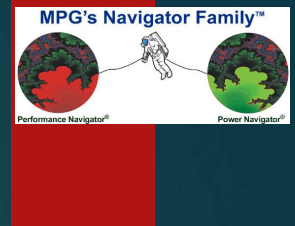


A screenshot of the Performance Navigator software interface. The window title is "Performance Navigator(R) - A Component of MPG's Navigator Family(R)". The menu bar includes "File", "Edit", "View", "Graphs", "Reports", "Power Analytics", "What If", "Modeling", and "Help". The "Power Analytics" menu is open, showing options like "Management Reporting", "Disk / Library / IFS Analysis", "Memory Analysis", "Before vs After Analysis", "Job Analysis", "Analytical Tools", and "Set Before vs After Dates...". The "Set Before vs After Dates..." option is highlighted in yellow. A red arrow points to this option. A secondary menu is open for "Set Before vs After Dates...", showing options like "Day vs Day (Historical)", "Day vs Day (Current Day)", "Month vs Month Top Job Analysis", and "Compare Sunday 10-Apr-2016 to Saturday 01-Oct-2016". The "Compare Sunday 10-Apr-2016 to Saturday 01-Oct-2016" option is highlighted in blue. The background shows a "Disk Space Utilization" chart with a red line and bars. The left sidebar lists various systems like "WEPAYDB", "Order Ent", "VPRODNEW", "PCEDB001", "unitrin9", "SAPVA1", "BIM_VIOS_11", and "bim VIOS 12".

Dates	Shift Times	Alias	LPAR	Keycode	Password	Prior CPUs	HA	Time Zone	Reminders	Before vs After Dates
Before vs After Dates										
Before										Wednesday, August 31, 2016
After										Thursday, September 1, 2016

A red arrow points from the top right towards the date selection fields in the "Before vs After Dates" section of the form.

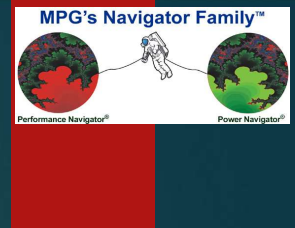
Before Vs. After Dates...Edit Command (Edit / System Option / Dates – Click Before vs After Dates Tab)



Dates	Shift Times	Alias	LPAR	Keycode	Password	Prior CPUs	HA	Time Zone	Reminders	Before vs After Dates
Before vs After Dates										
Before	Wednesday, August 31, 2016 ▾									
After	Thursday, September 1, 2016 ▾									

You can simply use the pull downs or click on the month / day / year & use the up / down arrow keys to change

What ever method you choose, notice that a new menu appears...



Before Date

After Date

Note day of the week is shown as well

Right Click In
Middle of The Screen...

Compare Wednesday 31-Aug-2016 to Thursday 01-Sep-2016 >

Analyze Interval: 13:45

Real Life In The Trenches Question 1 - Demo



“CPU jumped up yesterday – What’s Different?”

Real Life In The Trenches Question 2 - Demo

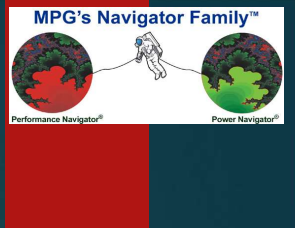


After a hardware change...“Did the upgrade make a difference?”

Real Life In The Trenches Question 3 - Demo



“We did a major application upgrade in January and I have a feeling the upgrade affected my CPU negatively...What can I do?”

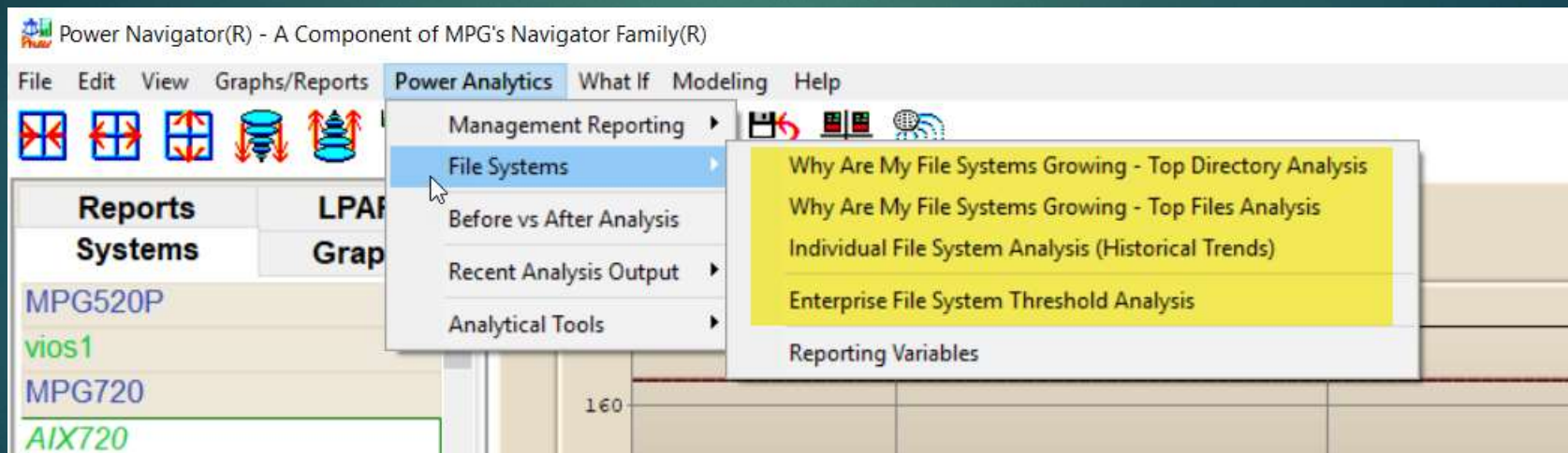


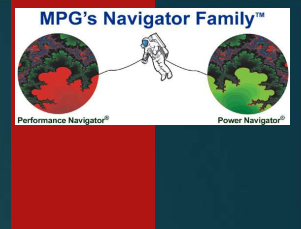
Demo on all the Before vs. After Techniques

Managing File Systems Is Easy



- ▶ Just like IBMi disk analysis, the data is collected on Sundays
- ▶ Entire suite of Power Analytics options to understand your files systems at a deeper level





Demo on all the File System Analysis Techniques