

Midrange Performance Group / Power Navigator®
Business Partner
Installation / SOS / Capacity Planning Guide
August 1st 2011

Overview

Power Navigator provides three main functions for the AIX, Linux (all platforms), HP/UX, and Oracle Solaris platforms: on-going performance management, problem determination and capacity planning. This document will focus on the **basic** process for capacity planning. Although Capacity Planning can involve many areas or tasks (i.e. applications, hardware, budget planning, etc) this document will focus on three of the most common tasks: hardware upgrades, server consolidation and LPAR configuration. Many of the steps outlined below are suggestions derived from performing thousands of capacity plans. However, often times there are unique requirements for a capacity plan (i.e. moving workloads, adding unknown workloads, etc) which Power Navigator can handle but which are not covered in this document. To cover more complex or detail capacity planning subjects, MPG offers both class room and web based training. You can also call tech support at 303-939-9648 or email questions to support@mpginc.com.

Prerequisites

Unlike Power Navigators IBM i companion product Performance Navigator, access to a host system is not required. This is because the historical performance data is stored in a flat file instead of DB2. Although not required, the end users installation of the Windows Power Navigator client is highly recommended. This will ensure historical performance data and more detail hardware configuration data. The customer then either email or FTP you one file per system analyzed.

Power Navigator uses the NMON to collect performance data for AIX and all platforms for Linux. The current install program supports AIX V4R3 and up, many version of Linux Red Hat, SuSe, Fedora, Mint, Ubuntu, Debian, Centos, and Knoppix on all platforms (Power, Mainframe, x86). MPG can support ANY Linux version. If not in the above list, just email support@mpginc.com. For Oracle Solaris and HP/UX, Power Navigator will use SAR to collect the performance data.

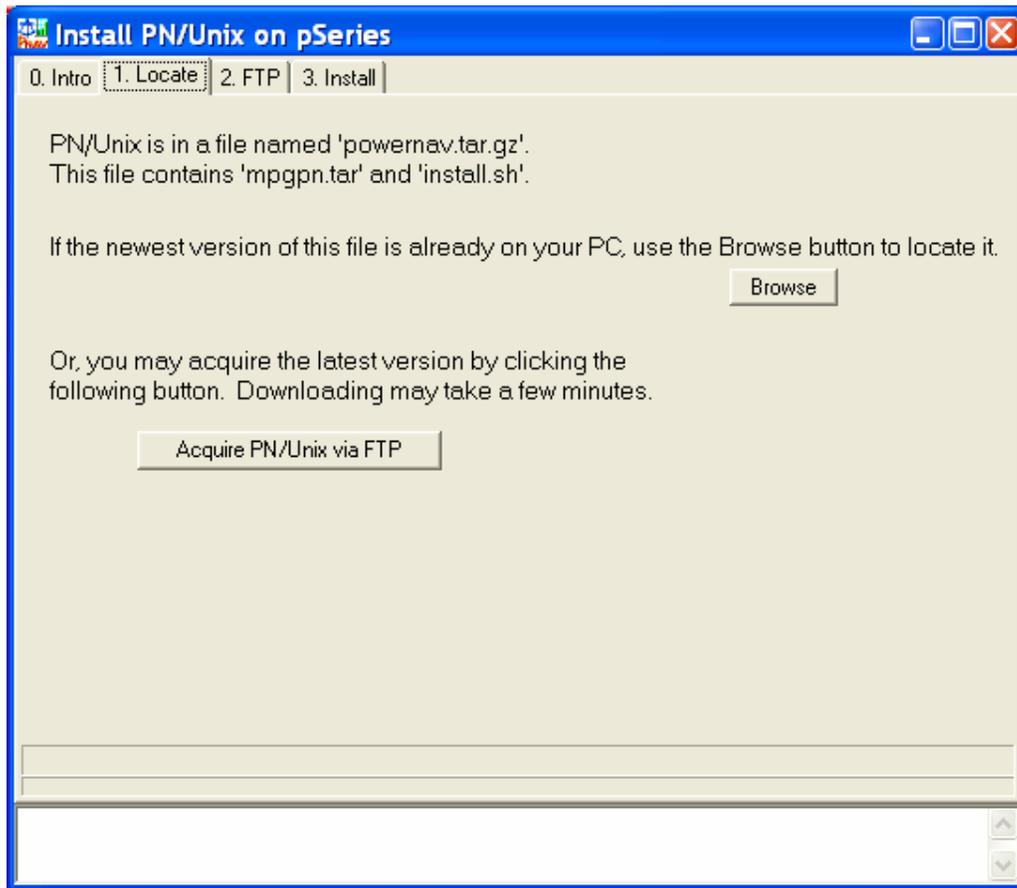
As an alternative, end users customer can FTP the analysis raw performance data (nmon, SAR). However, as mentioned above, the customer hardware configure will not be complete, in particular disk configurations. If you have this requirement, please call or email MPG at support@mpginc.com

First Step

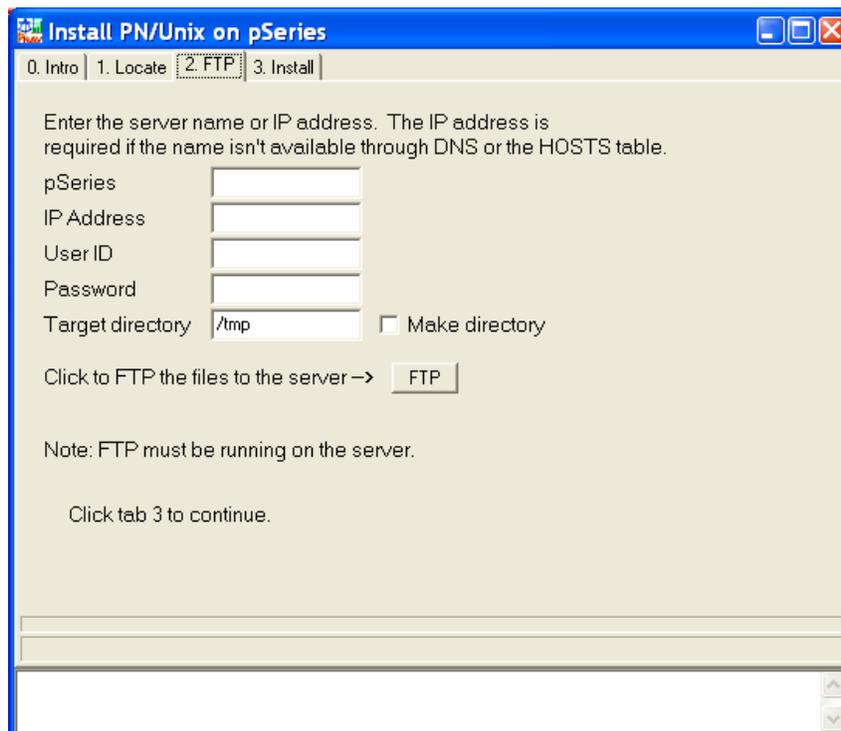
Direct the customer to download and install (see below) both the PC and Host components. This can be accomplished via MPG's website www.mpginc.com or the business partner website with a customized registration link. This is a self extracting Windows file that will install the PC code.

Power Navigator Installation

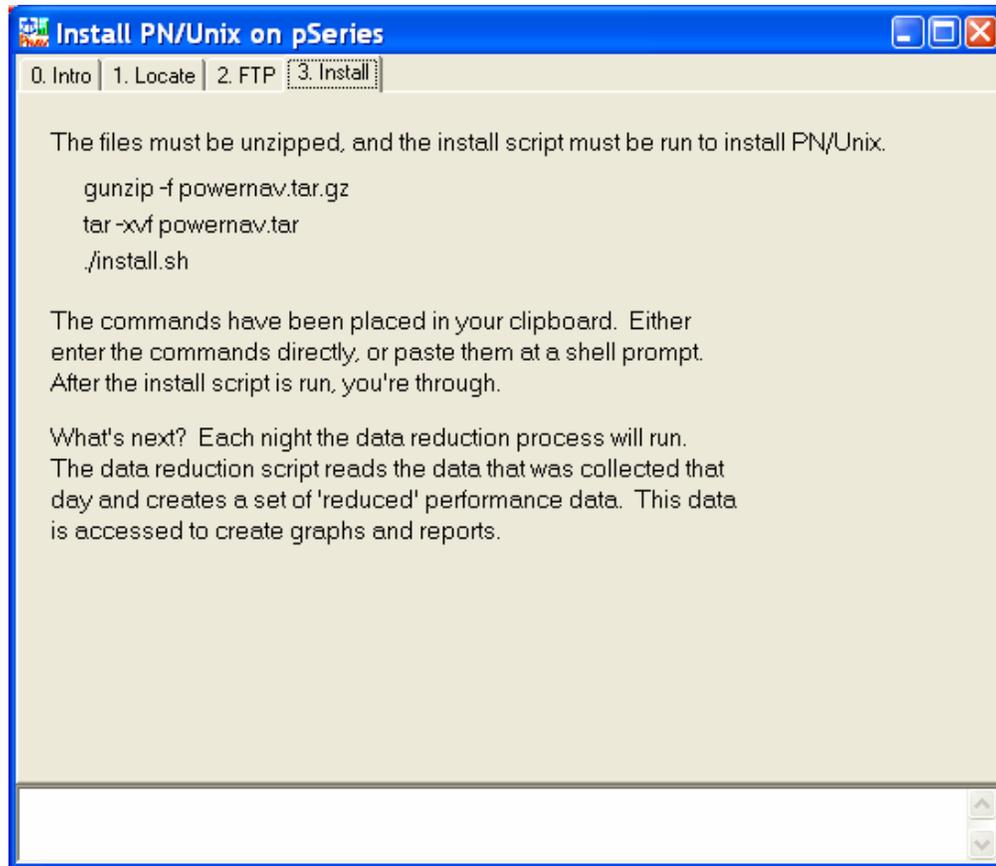
The first time Power Navigator is launched, it will prompt the user to install PN/Unix. (Alternatively you can go to File/Install PN/Unix Menu) When the user clicks 'YES' to the PN/Unix installation prompt, the following Window appears. Tab 0 is an introduction of the process. When the user clicks 'Acquire PN/Unix via FTP' they will be ask to save it somewhere on there PC. The customer is downloading one file called. "powernav.tar.gz". This file includes all the host code and the install script.



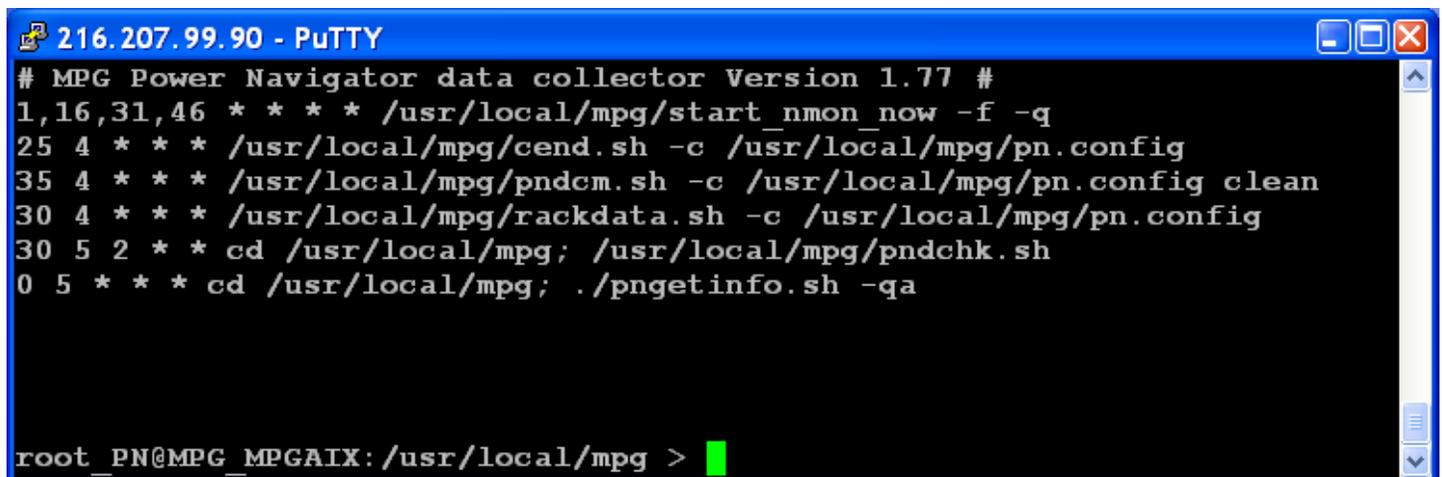
Next, they could go to tab 2. FTP. The next step is to Acquire PN/Unix via FTP via Tab 1. Locate. They would just enter the system name or IP address, ID, PW and click FTP. NOTE: This is for a small number of systems. For large numbers of systems, just have the customer manually FTP the file to there system in the /tmp directory.



The next step is to issue the following commands. The install script determines the platform, OS, OS release and install the correct code and performance collection method.



The installation script manages the performance data collection with entries in the crontab.



A description of these entries is below:

Start_nmon_now – start nmon

This script starts the latest version of nmon or Topas nmon with 5 minute intervals and ending at midnight. Please note that this entry runs several time an hour just to make sure nmon is always running.

Cend.sh – Consolidate existing nmon data.

This script combines yesterday's nmon data into a single file called MPGDATA2.hostname. This process runs at 4.35am every night. It also gzips the daily nmon file to reduce the space requirements

Pndcm.sh – with switch clean

This script runs once a day and delete the gzip nmon file older than 7 days by default. It also archives nmon data older than 366 days in the mpgdata2.hostname file to a file called mpgdata2_archive.hostname.

Rackdata.sh – Collect rack and miscellaneous data.

This script runs nightly to collect the current hardware rack data and miscellaneous data like DF space information.

Pndchk – nmon data integrity check

This script runs once a week and checks the integrity of the nmon data.

Pngetinfo – updates the pinfo file

This script updates the pinfo file every night. This contains all the performance data needed to perform the capacity plan in one file.

YOU CAN NOW RELAX BECAUSE POWER NAVIGATOR IS COLLECTING AND ANALYZING PERFORMANCE DATA 7 DAYS A WEEK, 365 DAYS A YEAR. When you have collected enough data (i.e. one week) you can have the customer email or ftp you the performance data .

Receiving performance data from customer.

Once you have collected enough data, just have the customer FTP you the following file name from each system being monitored. By default this file is in the /usr/local/mpg directory

Pinfo.hostname.os.tar.gz

Analyzing data with Power Navigator.

Once the analysis receives the data, unzip the pinfo file into a directory on your PC. The only files required are mpgdata2.hostname, mpgdata2_current.hostname, mpgdata3.hostname and rackdata.hostname. The other file in the pinfo file are for tech support.

Next just start Power Navigator and go to Edit/connection/AIX and browse to the directory where you detached the files and select the mpgdata2.hostname file and open.

Once connected, go to the MPG's BP keycode website, enter the serial number and select Yes for the Power Navigator key. Then go to Edit/System info/keycode, enter key and restart the program.

The first step is to run the 'State of the Union'. This will produce an HTML document which you can save as a PDF. It will also prompt you to select the peak day for the What-If analysis. At the end of the SOU script, the What-If window will open.