HP	Web Jetadmin	Advantages

HP Web Jetadmin Advantages
over HP Jetadmin

This technical brief discusses the advantages in features and functionality of HP Web Jetadmin over HP Jetadmin.

Overview

HP Jetadmin software has been used for installation and/or management of HP printers connected to the network with HP Jetdirect print servers since 1993. Much has changed and improved in the world of networking during this time. As part of the continual improvement process, HP has developed a new and superior suite of network installation and management software tools for HP network printers and peripherals. This suite of software solutions was created to meet a variety of customer needs.

Some customers have expressed a desire for a tool to provide just installation and configuration, without the overhead of having a full printer management tool. Others have expressed interest in a fully equipped printer management package to provide functionality above and beyond what Jetadmin provided.

Solutions

HP offers several solutions for users desiring the ability to install and/or manage HP networked printers including:

- HP Embedded Web Server
- HP Install Network Printer Wizard

- HP Web Jetadmin

The HP Embedded Web Server functionality in many newer HP printers can be used to install and manage printers, however, it does so on a one-to-one basis. HP Embedded Web Server is accessed by browsing directly to the printer through a standard web browser, one at a time.

The HP Install Network Printer Wizard is a tool used for installation and configuration of printers only. It reduces the technical expertise and time required for network printer installation by greatly simplifying the process. If Jetadmin was only being used for installation and configuration of devices, the HP Install Network Printer Wizard would be the recommended replacement product.

HP Web Jetadmin provides robust management of network peripherals in order to increase end-user productivity and lower the total cost of ownership. It can install, configure, and manage many printers simultaneously through a web browser interface. To fully replace the full printer management capabilities that Jetadmin provided, HP Web Jetadmin would be the recommended replacement product.

It is important for users to feel comfortable with the features offered by HP Web Jetadmin in order for it to be accepted as a viable replacement for HP Jetadmin. This paper will attempt to ease the transition from HP

Jetadmin to HP Web Jetadmin by comparing their features and functionality. It will focus on comparing functionality in the following areas:

- Installation
- User interface
- Device properties/capabilities
- Device configuration
- NetWare configuration
- Print queue creation
- Firmware upgrades
- Diagnostics
- Discovery
- Alerts

Also discussed will be the many features that are unique to HP Web Jetadmin over HP Jetadmin.

Installation

HP Jetadmin can be installed on machines running any of several operating systems including Microsoft Windows 9x/NT/2000, HP-UX, and Solaris. However, a separate executable has to be installed for each operating system. In addition, a separate executable has to be installed for each desired language that is to be displayed.

While HP Web Jetadmin can be installed on a smaller number of operating systems comparatively, including Microsoft Windows NT/2000 and Linux, many different client machines running any of several operating systems can operate the HP Web Jetadmin software by browsing to an installed copy through an ordinary web browser such as Netscape Navigator or Microsoft Internet Explorer. For example, although Windows 9x is not a supported platform for installation of HP Web Jetadmin, Windows 9x machines can still be used to manage devices by browsing, through an ordinary web browser, to a host machine running HP Web Jetadmin.

Also, HP Web Jetadmin need only be installed on a minimal number of machines, with virtually all other client machines having the ability to operate HP Web Jetadmin by using an ordinary web browser. Less installations means less network discoveries which in turn means less network traffic.

For example, consider a case where 20 users on 20 different machines require the ability to install and manage network printers.

If HP Jetadmin is chosen, the software must be installed on all 20 workstations, which means 20 potential printer discoveries creating network traffic in order to populate 20 separate, non-centralized databases for 20 users.

If HP Web Jetadmin is chosen, a single installation of Web Jetadmin can suffice for all 20 users to access through a browser. This means one discovery to populate one centralized database in which any number of users can access through a standard web browser.

Also, with Web Jetadmin, there is no need for a separate installation for each and every desired language. HP Web Jetadmin has the ability to add simple language packs (up to 20), or modules, to the already installed version of Web Jetadmin. This feature minimizes the number of installations, greatly reduces the footprint of the installed software, and makes viewing HP Web Jetadmin in several languages a simple task.

User Interface

The user interfaces are very similar for both HP Jetadmin and HP Web Jetadmin in that both products default to displaying a list of all discovered devices (see Figures 1 and 2). The columns that are displayed can be sorted, and columns can be
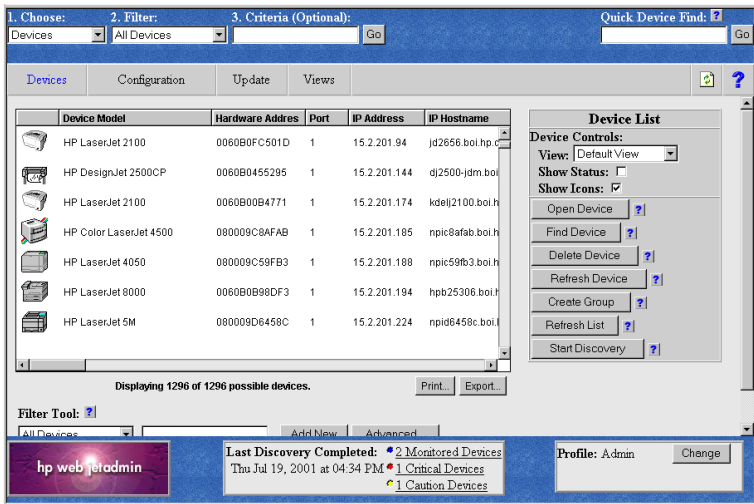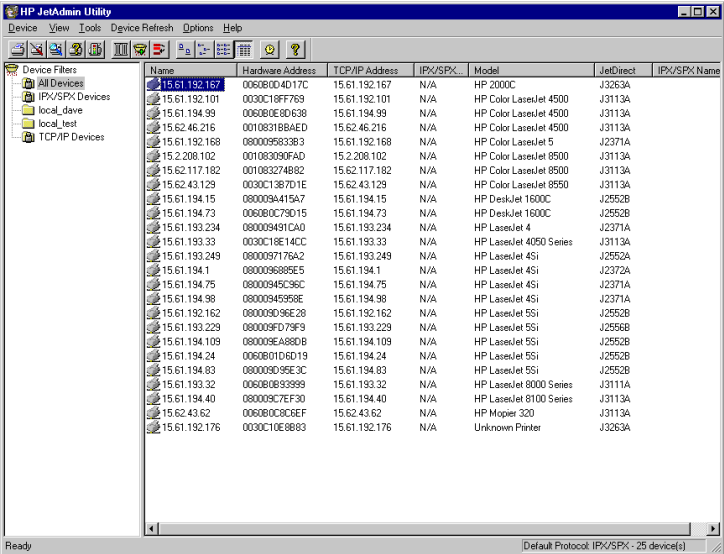

Figure 1   HP Web Jetadmin

Figure 2   HP Jetadmin

added or subtracted to the user's preference.

Features unique to HP Web Jetadmin include:

- Pre-defined views can be selected to display additional columns e.g. the page count view displays a page count column, etc.

- Custom views can be created and saved to display only those columns a user may desire.

- Device status can be viewed for all devices simultaneously to indicate devices in a cautionary or critical state.

- Custom, nested filters can be created to display only those devices that meet a multitude of user-defined criteria.

- The user interface is completely customizable for any user. HP Web Jetadmin can display preferred backround colors, views, etc. on a user by user basis.

Printer Properties and Capabilities

When viewing the status of a particular device, both HP Jetadmin and HP Web Jetadmin can display a number of items describing the printer, such as features and capabilities (see Figure 3).

Items unique to HP Web Jetadmin include:

- Interim Page Count - the ability to instruct Web Jetadmin to count the number of pages printed on a particular printer for a specified period of time.
- Toner Gauge - a gauge that indicates the remaining toner or ink levels.
- Usage Meters - a feature under Diagnostics that displays the quantity of various media types printed (both simplex and duplex) on a particular printer. It uses the media type "letter" as a constant, assigns it a value of 1.0, and calculates all other media types as a multiple of this constant. For example, "legal" size is displayed with a value of 1.3, since it is slightly larger than letter size.

Novell Netware Configuration

Novell NetWare print server configuration, either creation of Netware objects or just binding objects to an HP Jetdirect device, is possible in both HP Jetadmin and HP Web Jetadmin. Both products include the ability to configure HP Jetdirect devices for Novell bindery, NDS, and remote printer mode.
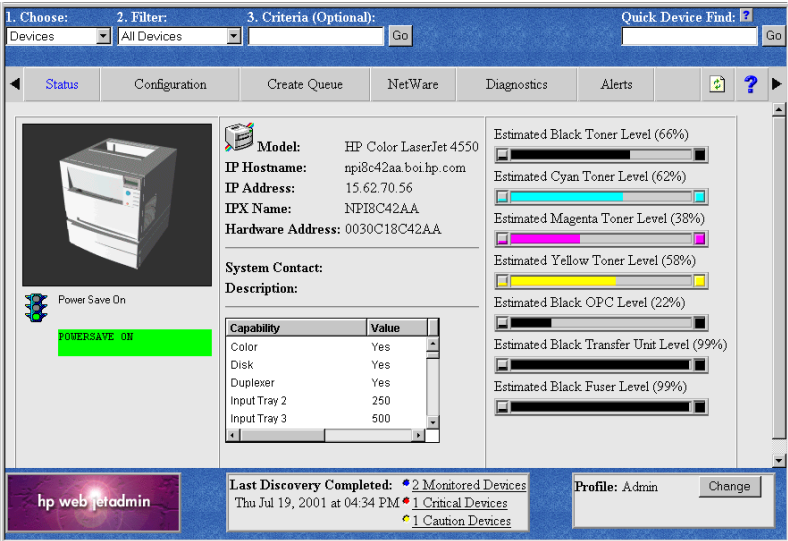

Figure 3

Features unique to HP Web Jetadmin include:

- Full Admin rights are not required for NetWare configuration. Create rights are required to create NetWare objects, while only user rights are required to bind previously created NetWare objects to HP Jetdirect devices.

Windows NT Print Queue Creation

Both HP Jetadmin and HP Web Jetadmin allow for creation of shared Microsoft Windows NT/2000 print queues. However, HP Jetadmin is limited to creating just a single print queue at a time, and only on the machine running HP Jetadmin. Also, users need to run an additional wizard from the Start Menu, outside of the HP Jetadmin product, in order to create a peer-to-peer connection to the networked printer via the HP Jetdirect Port.

Features unique to HP Web Jetadmin regarding print queue creation include:

- Creation of shared print queues onto remote machines.
- HP Web Jetadmin running on Windows NT/2000 can create remote print queues not only on other Windows NT/2000 machines but also Linux, HP-UX, and Solaris machines.
- Creation of multiple print queues onto multiple machines simultaneously.
- Installation of drivers from remote locations, either previously installed or from *.inf files.
- Install drivers to be used by Windows 9x clients that connect to shared printer.

HP Jetdirect Firmware Upgrades

Both HP Jetadmin and HP Web Jetadmin provide means for upgrading firmware. However, HP Jetadmin does not have the inherent ability to upgrade firmware by itself. It must launch a separate program called the HP Download Firmware

Manager, which can upgrade the firmware on HP Jetdirect devices only.

On the other hand, HP Web Jetadmin can perform firmware upgrades from within the HP Web Jetadmin program itself, and can upgrade not only HP Jetdirect firmware but also printer firmware.

Diagnostics

Both HP Jetadmin and HP Web Jetadmin include diagnostics features that might prove useful to a helpdesk such as printing a test page on the printer, checking status, etc..

However, HP Web Jetadmin contains a much more complete set of printer diagnostics features including:

- Power Cycle – allows for remotely cycling the power of printers, which restarts the printer and reinitializes all of the printer's settings.

- Reset Printer To Factory Defaults – restores the printer's settings to the factory defaults.

- Remote Control Panel – an interactive version of the printer's control panel. Settings can be remotely changed on the printer as if they were being changed from then front panel of the printer itself.

- Error Log – displays the log of error conditions that the printer encountered in the recent past. This error log is stored on the printer, and can also be accessed via the printer front panel.

JetDirect Configuration

Both HP Jetadmin and HP Web Jetadmin can configure parameters on HP Jetdirect devices such as IP address, default gateway, etc.
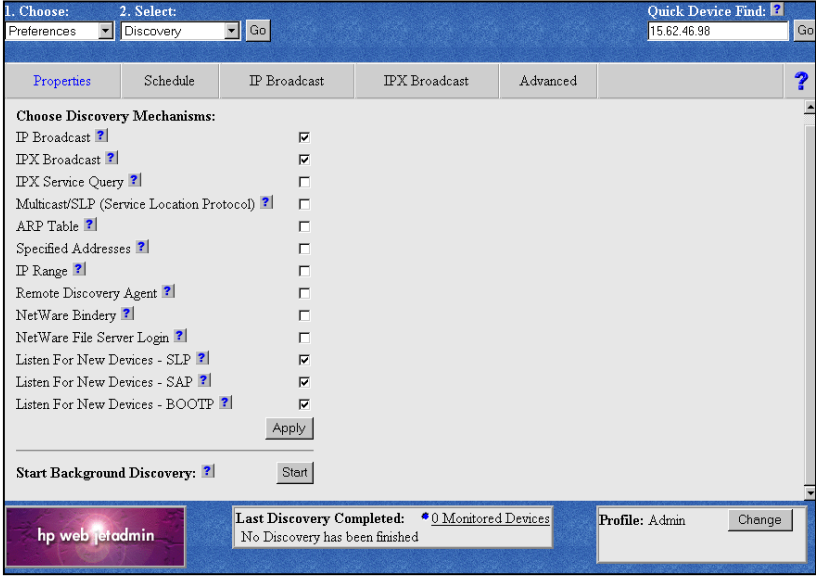

Figure 4

Items unique to HP Web Jetadmin include:

- System name (IP hostname)
- System log server

Discovery

HP Jetadmin and HP Web Jetadmin both provide extremely accurate techniques for performing autodiscovery of devices on the network.

Features unique to HP Web Jetadmin include (see Figure 4):

- Scheduled Auto discovery – the ability to schedule exactly when printer discoveries will be performed.

- Specified Addresses Discovery – discovers only those devices entered into a list. Can discover by IP address, hostname, IPX address, MAC address.

- ARP discovery – discovers printers contained within ARP tables of machines on the network.

- Listen for New Devices – passive form of discovery whereby HP Web Jetadmin listens for packets sent by printers such as BOOTP or DHCP requests and SAP packets.

- Remote Discovery Agent (RDA) – runs as a service on a machine on a remote subnet to perform discoveries. Its main functionality is to provide the ability to discover unconfigured printers using IP on remote subnets. However, it also provides value by eliminating SNMP traffic across routers.

Alerts

Both HP Jetadmin and HP Jetadmin can warn, or alert, users to conditions on printers when they occur.

HP JetAdmin will warn users in the form of audio alarms and/or popup windows on the machine running HP Jetadmin only. This alert is based upon polling the printer at predefined intervals.

HP Web JetAdmin has the ability to send email messages to any number

of users for any particular condition on the printer that may occur. HP Web JetAdmin alerts can be based upon traps, whereby printers will warn of their condition in a real-time fashion. Polling can also be used for printers that do not support traps. Unique email messages can also be sent for unique events.

Printer Configuration

Both HP Jetadmin and HP Web Jetadmin provide a multitude of items that can be configured on printers.

Since HP Jetadmin was introduced much earlier than HP Web Jetadmin. it provides more configuration items for printers that were considered current many years ago.

On the other hand, HP Web Jetadmin provides more configuration items for more recent HP printers, and will continue to support new printers where HP Jetadmin will not.

Also, HP Web Jetadmin has the ability to automatically detect when new device plugins appear on the web, and will download those plugins on-the-fly to immediately provide support for new devices.

Features Unique to Web Jetadmin

There is still a rather long list of features that HP Web Jetadmin provides over HP Jetadmin that have not been discussed.

Discovery of Non-HP printers

HP Web Jetadmin has the ability to discover more than just HP printers. It can also discover third part printers, as long as those printers adhere to the Standard Printer MIB. This provides a single tool for administrators to use to manage all vendors of printers.
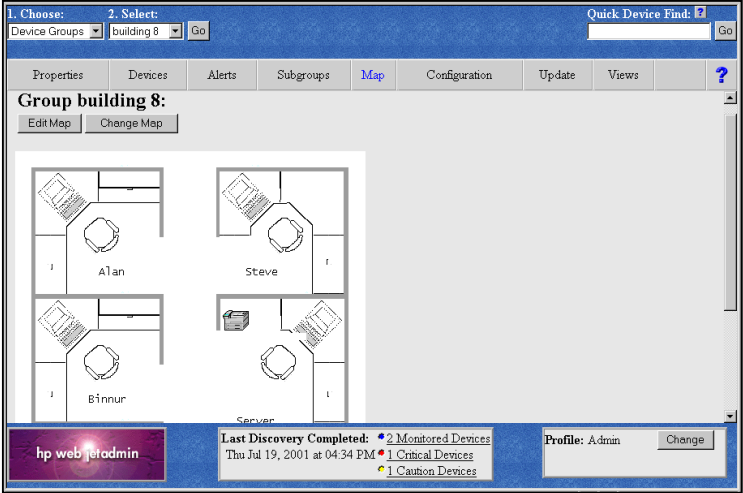

Figure 5

Group Device Management

The cache of devices in HP Web Jetadmin can broken down into smaller, more easily managed, subsets called "groups". The filter capability in HP Web Jetadmin makes it simple to categorize printers into smaller groups based upon desired criteria.

Site map

Groups can be displayed in list format, or they can be displayed visually in the form of maps (see Figure 5). These maps will visually show the location and status of each device in the group.

Multiple Device Configuration

Selecting the *Config* tab from the main list of all devices in HP Web Jetadmin allows administrators to configure parameters on multiple devices at a single time. If a parameter is not supported on a particular printer, it is ignored. Multiple configuration can be an enormous time saver for administrators.

Profiles

HP Web Jetadmin allows for creation of accounts, or profiles, whereby access to certain functionality or HP Web Jetadmin itself can be password protected.

Enterprise Management Integration

Software bridges are available that allow HP Web Jetadmin to integrate with enterprise management packages such as HP OpenView NNM, Tivoli NetView, orCA Unicenter. These packages will now be able to launch directly into an HP Web Jetadmin Status page for a particular device.

Summary

HP Jetadmin has been a leading printer installation and management software package over the past few years. In a comparison of features and functionality between HP Jetadmin and its printer management successor, HP Web Jetadmin, it appears that HP Web Jetadmin is well poised to maintain the leadership role for years to come.