

# SiteAudit Knowledge Base

## Filtering Data for Analysis and Reporting

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SiteAudit offers 'best of breed' data collection and filtering capability. Filtering data provides accurate information about a wide assortment of fleet management issues. For example, determining the top 25 problem printers, the monthly color print volume for HP color LaserJets, or an estimate of the number of help desk calls by month. Using filtering enables users to create special reports and fleet metrics for cost and service management.

### Viewer Basics

To start a basic understanding of how to use the SiteAudit Views is important. There are 3 basic areas to a view and these are 1) the Menu & Tool bar, 2) the Organization view and 3) the information Grid. (See below)

Manufacturer	Model	IP Address	Serial #	Pages Printed	Total Errors	Service Fix Time	Downtime	Critical Errors/Pages
Ricoh	RICOH Aficio 1027	(Custom)	(Custom)	1,674	38	01:52:53	30.05:17:55	0.005
Hewlett-Packard	HP LaserJet 5M	(Non blanks)	(Non blanks)	288	701	30.05:17:55	30.02:35:27	0.125
Hewlett-Packard	HP LaserJet 5M	Canon R_C3220 81.01	Canon R_C3220 81.01	394	195	28.05:43:42	24:13:02:36	0.089
Canon	Canon R4570 32.02	Canon R4570 32.02	Canon R4570 32.02	22,945	104	13.03:59:51	23.20:35:43	0.004
Hewlett-Packard	HP LaserJet 5M	Canon R6000	Canon R6000	212	191	27.09:18:43	23.04:59:50	0.198
Hewlett-Packard	HP LaserJet 5M	Canon R6570 30.02	Canon R6570 30.02	828	293	29.06:01:27	21.18:54:02	0.059
Hewlett-Packard	HP LaserJet 5M	Fiery X3eTY 35C-4M	Fiery X3eTY 35C-4M	788	268	28.08:10:56	21.18:35:25	0.056
Hewlett-Packard	HP LaserJet 5M	Generic 35C-1	Generic 35C-1	483	307	27.06:40:09	20.21:07:42	0.091
Hewlett-Packard	HP LaserJet 5M	HP BUSINESS INKJET 2200	HP BUSINESS INKJET 2200	622	257	27.22:55:19	19.06:09:42	0.063
Hewlett-Packard	HP LaserJet 5	hp color LaserJet 3550	hp color LaserJet 3550	67,766	1	19.03:39:43	19.03:39:43	0.000
Hewlett-Packard	HP LaserJet 5	hp color LaserJet 3700	hp color LaserJet 3700	4	4	19.03:39:44	18.19:47:11	0.000
Hewlett-Packard	HP LaserJet 5	HP Color LaserJet 3800	HP Color LaserJet 3800	6	6	19.03:39:43	18.19:46:45	0.000
Hewlett-Packard	HP LaserJet 5	HP Color LaserJet 4500	HP Color LaserJet 4500	25	11	18.16:52:53	18.10:06:03	0.160
Konica Minolta	Fiery X3eTY 35C-4M	hp color LaserJet 4550	hp color LaserJet 4550	2,575	327	19.18:46:26	18.03:34:55	0.008
Xerox	Xerox WorkCentre Pro.	hp color LaserJet 4600	hp color LaserJet 4600	10,422	1,384	16:35:09	17.11:52:50	0.015
Hewlett-Packard	HP LaserJet 5M	hp color LaserJet 4650	hp color LaserJet 4650	1,842	388	28.20:52:40	16.20:49:52	0.031
Hewlett-Packard	HP LaserJet 8000 Series	hp color LaserJet 5500	hp color LaserJet 5500	3,087	318	15.15:27:57	15.15:45:11	0.046
Canon	Canon R4570 32.02	hp color LaserJet 5550	hp color LaserJet 5550	7,381	45	12.04:32:44	14.06:14:20	0.005

- Menu and Tool bar makes navigating between the 6 SiteAudit views easy to do:
  - Inventory view → Inventory Management
  - Assessment view → Cost Management & Capacity Planning

- Volume Analysis view → Print Count Trending and Billing Management
  - Lifetime Counts view → Replacement Analysis
  - Problem Analysis view → Help Desk Management
  - Incident History view → Service Management
- > Customer Time Span
- Shows when data collection began up to the last date
  - Customizing collection dates is performed with the drop down selection
- Organization View
    - Printer placements are organized in an hierarchical view but accounted for only once
    - Enables the structured tracking of costs, printer utilization, etc...
  - Information Grid
    - Displays printer information in adjustable columns for easy viewing
    - Total counts, summations and averages are listed in the Summation bar

## Grouping & Sorting Data

A column of data can be grouped. Comparisons can be made by grouping data. For example, grouping inventory by manufacturer tells how many printers are HP, Canon, Lexmark, Xerox etc... Similarly grouping by model tells how many of each model there are.

Printer Name	IP Address	Serial #	Connection	Model	Output
<b>Manufacturer: Canon</b>					
Count: 1					
<b>Manufacturer: Epson</b>					
Count: 2					
<b>Manufacturer: Hewlett-Packard</b>					
Count: 71					
<b>Manufacturer: Lexmark</b>					
Count: 33					
<b>Manufacturer: Ricoh</b>					
Aficio CL7000	192.168.49.208	IU988-AP-0PP	Networked	RICOH Aficio CL7000	Color
Aficio CL7000	192.168.60.205	09111	Networked	RICOH Aficio CL7000	Color
Aficio CL7000	192.168.60.202	653B-A1	Networked	RICOH Aficio CL7000	Color
Aficio CL7000	192.168.60.200	A-988U	Networked	RICOH Aficio CL7000	Color
Aficio CL7000	192.168.60.200	MII-566AA0	Networked	RICOH Aficio CL7000	Color
Aficio CL7000	192.168.60.202	PPO9987-GA	Networked	RICOH Aficio CL7000	Color
Aficio CL7000	192.168.60.203		Networked	RICOH Aficio CL7000	Color
Aficio CL7000	192.168.60.204		Networked	RICOH Aficio CL7000	Color
Aficio CL1000N	192.168.60.205	LL99800X	Networked	RICOH Aficio CL1000N	Color
Aficio 1224C	192.168.116.163		Networked	RICOH Aficio 1224C	Color
Aficio CL7000	192.168.122.153	P0089972	Networked	RICOH Aficio CL7000	Color
Aficio CL7000	192.168.131.152		Networked	RICOH Aficio CL7000	Color
Count: 134					

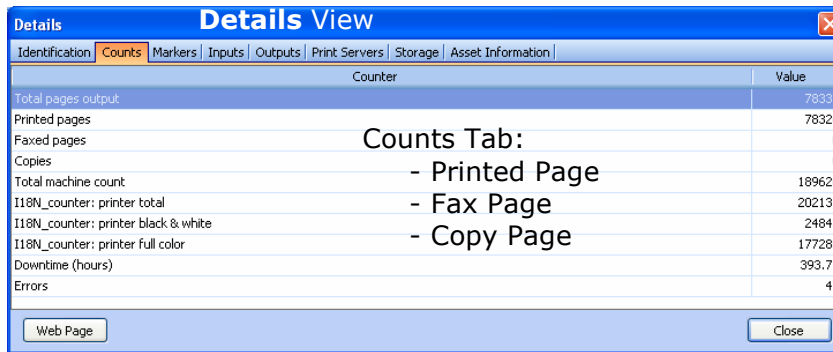
Additionally, grouping can be by output type; for example grouping color output devices by manufacturer tells how many color printers are Canon, HP, Lexmark etc...

- Group By Manufacturer
  - View the number of Manufacturers (Printer Vendors)
  - Right click the Manufacturer bar under the Model column to display the model count

Column data can be sorted in Ascending or Descending order. For example, sort Printer Usage from most usage to lowest usage.

- Sorting Column Data in Ascending or Descending Order
  - Sort in Ascending or Descending order by clicking the column head

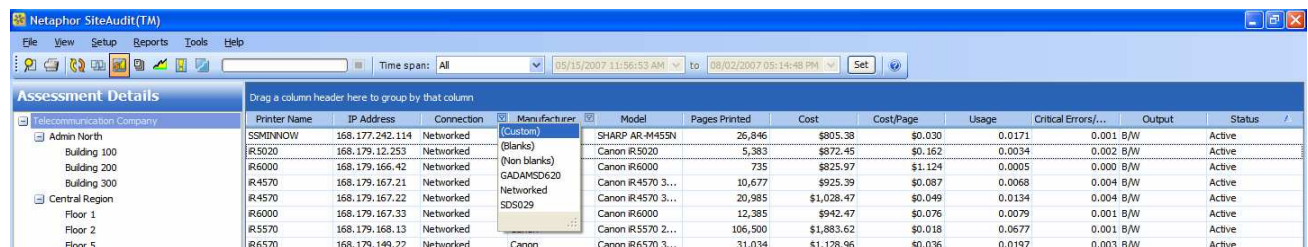
Drill down on specific printer details to see consumables levels, counts and asset information.



- Printer Details tab
  - Right click on a printer and select Detailed View
  - Consumables, counts and asset information is provided in tabbed windows
  - Add or modify asset data e.g serial number
  - Select **Web Page** to see the current printer settings

## Creating a Basic Filter

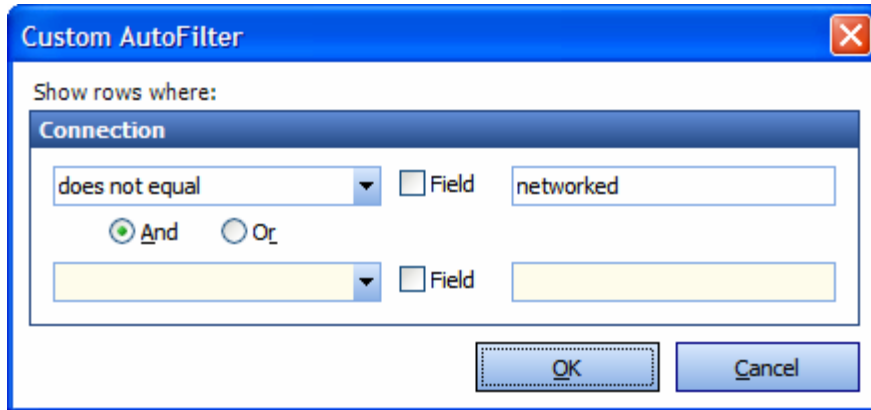
A basic filter can be created for any column of data. Find the down arrow at the column head and select (Custom).



A dialog box appears called Custom AutoFilter. The AutoFilter provides a pull down menu of conditions like Equals, Does Not Equal, Greater Than etc... Next to the condition is a blank box where a filter or condition can be added.

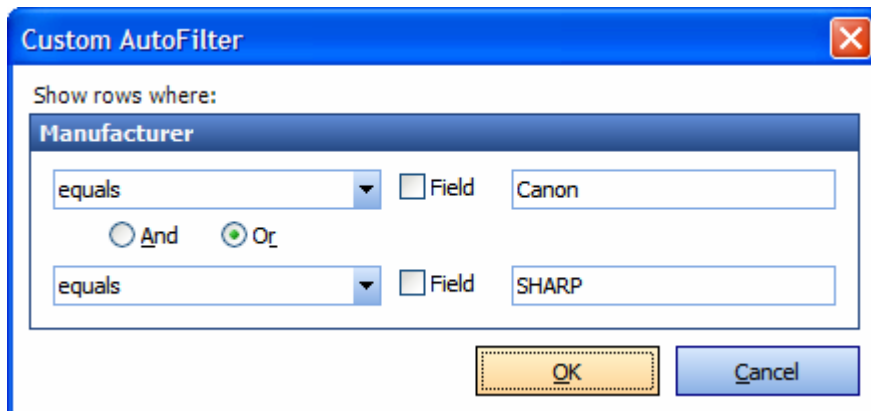
For example, to show only local printers select the Connection column, then (Custom). Select 'Does Not Equal' and type Networked.

- Single Condition used to filter and display only Local Printers



Use this filter in the Inventory View to see only local printer inventory; or use the filter for the Assessment View to see the cost and utilization of local printers.

- Multiple Condition used to view two manufacturers



Use this filter to compare data produced by Canon and Sharp printers against other manufacturers.

## Complex Filters for Analysis

Complex filters are a SiteAudit analytical tool. Complex filters provide a way to mine or view a combination of data columns in order to show very interesting data about the cost and performance of the printer fleet. Unlike basic filters complex filters use of all columns in the SiteAudit view. For example the Assessment view has 14 different columns that can be combined to filter data.

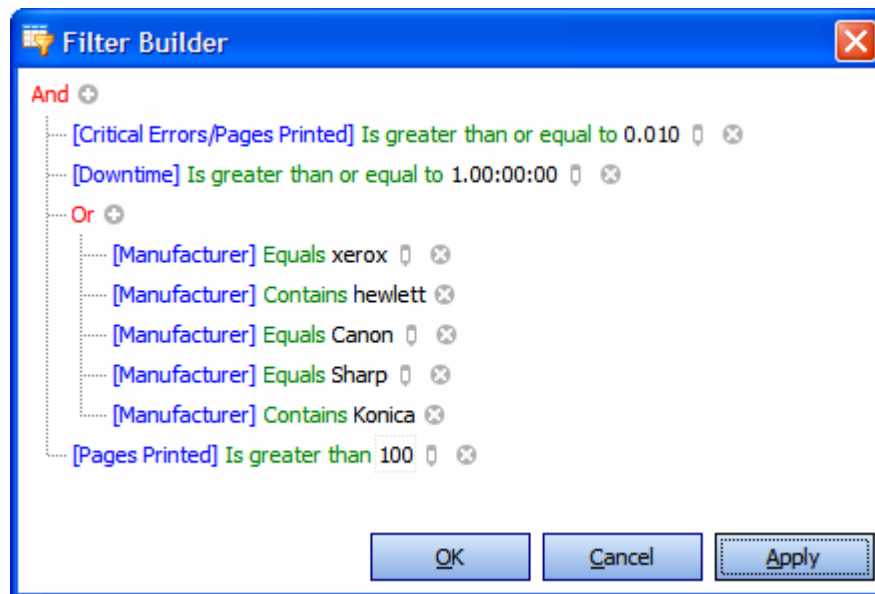
The best approach to using complex filters, which will save time constructing them, is to write out by hand the columns to be groups. Select which SiteAudit view contains the information desired.

- SiteAudit Views (current release is v1.6)
  - Inventory view → Inventory Management
  - Assessment view → Cost Management & Capacity Planning
  - Volume Analysis view → Print Count Trending and Billing Management
  - Lifetime Counts view → Replacement Analysis
  - Problem Analysis view → Help Desk Management
  - Incident History view → Service Management

Decide on a fleet metric and then what data should be grouped. For example which manufacturers e.g. Canon, Xerox, Ricoh, Konica Minolta etc..., are to be analyzed is one group. Another group is the service data shown in the downtime and critical errors/page columns. The metric here is top problem printers by MFP manufacturers.

To create the filter, go to the Edit Filter button located in the bottom right corner of the SiteAudit view. Some examples follow below.

- **Top Problem Printers Metric** defined by Manufacturer using downtime, error frequency and minimum number of page printed.



This filter from the **Problem Analysis** view shows all printers from Xerox, Hewlett Packard etc... (MFP makers) with downtime greater than one day, with an error frequency greater than 1% and printed at least 100 pages during the month. These are the problem printers. The metric can be used to measure service performances (SLA compliance) and/or which printers may need to be replaced.

The result of this filter is the following view.

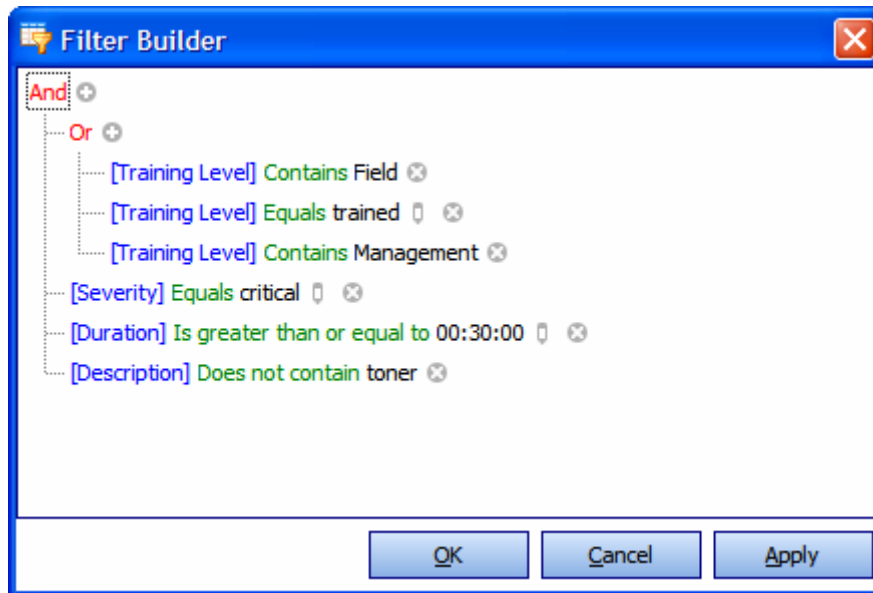
Manufacturer	Model	IP Address	Serial #	Pages Printed	Total Errors	Service Fix Time	Downtime	Critical Errors/Page
Xerox	Xerox WorkCentre Pro 65, v1 Multifunction System	168.177.166.24	MRN005581	10,422	1,384	16:35:09	17:11:52:50	0.015
Hewlett-Packard	hp LaserJet 4200	168.177.166.37	CNDX612743	2,206	277	00:37:36	2:05:50:55	0.038
Sharp	SHARP AR-M455N	168.177.175.112	3PHAF07891	3,677	183		6:16:46:24	0.011
Xerox	Xerox WorkCentre Pro 65, v1 Multifunction System	168.179.147.110	MRN015641	3,568	746		29:09:37:32	0.018
Hewlett-Packard	HP LaserJet 8100 Series	168.179.147.133	USB011082	1,360	226	2:17:17:33	2:13:53:12	0.014
Hewlett-Packard	HP LaserJet 5	168.179.147.140	S4601LDCB5M	537	171	17:00:24:45	14:05:07:22	0.056
Hewlett-Packard	hp color LaserJet 4650	168.179.147.162	3PHAB18328	719	570	18:09:40:46	1:12:25:24	0.104
Hewlett-Packard	HP LaserJet 55i	168.179.147.164	USBK181378	401	221	16:21:54:20	4:23:54:09	0.027
Hewlett-Packard	HP LaserJet 5	168.179.147.175	S4601LD663L	409	207	17:16:32:51	12:15:05:00	0.076
Hewlett-Packard	HP LaserJet 5	168.179.147.180	S4601LD6DAJ	1,195	47	12:18:55:34	12:20:03:22	0.029
Hewlett-Packard	HP LaserJet 5	168.179.147.181	S4601LD20FN	410	81	13:19:53:48	12:20:33:55	0.078
Konica Minolta	Generic 35C-1	168.179.148.228	S4604L0000X	14,945	2,327	25:23:13:49	1:01:44:44	0.012
Canon	Canon IR C3220 81.01	168.179.149.26	JNC16703	13,859	193	01:57:52	11:04:15:58	0.012
Hewlett-Packard	hp color LaserJet 4600	168.179.149.33	JP8KB12120	1,551	354	4:18:18:30	2:04:03:36	0.057
Hewlett-Packard	hp LaserJet 4250	168.179.150.235	USBKP25629	1,012	238	01:47:35	5:05:35:58	0.080
Konica Minolta	Generic 35C-1	168.179.153.246	S4603L0000X	3,657	438	5:08:44:55	3:04:46:30	0.051
Hewlett-Packard	HP LaserJet 5M	168.179.167.23	S4601LP1P3A	2,943	102	7:13:20:33	8:04:50:47	0.010
Hewlett-Packard	HP LaserJet 2200	168.179.168.35	JPGGR21415	151	29		13:06:29:28	0.066
Hewlett-Packard	HP LaserJet 4000 Series	168.179.168.57	USEB042335	2,577	208	00:10:57	1:00:36:10	0.012
Hewlett-Packard	HP LaserJet 5M	168.179.169.132	S4601LD9554	622	257	27:22:55:19	19:06:09:42	0.063
Hewlett-Packard	HP LaserJet 5M	168.179.169.244	S4601LD99CY	483	307	27:06:40:09	20:21:07:42	0.091
Hewlett-Packard	HP LaserJet 5M					28:05:43:42	24:13:02:36	0.125
HP LaserJet 4000 Series						00:10:59	2:17:54:14	0.012
HP LaserJet 5M						28:12:36:51	23:20:35:43	0.089
Generic 35C-1						7:10:45:15	1:00:14:09	0.016
HP LaserJet 5M						28:08:10:56	21:18:35:25	0.056
HP LaserJet 5M						28:20:52:40	16:20:49:52	0.031
HP LaserJet 55i						25:09:59:10	5:09:00:17	0.038
HP LaserJet 5M						29:06:01:27	21:18:54:02	0.059
HP LaserJet 5M						27:09:18:43	23:04:59:50	0.198
HP LaserJet 8150 Series						22:05:01	5:01:42:35	0.183
HP LaserJet 8000 Series						15:15:27:57	15:15:45:11	0.046
hp color LaserJet 4650						00:00:29	5:18:43:17	0.272

35 printers meet the conditions set by this filter.

- **Volume Analysis Metric** defined by the minimum number of color and B/W pages

This filter from the **Volume Analysis** view shows the amount of color and B/W output from color printers. It answers the question whether color printers are used for color only or a mix of color and B/W. Because color printers cost more than B/W ones also per print cost is more; this is useful for controlling costs.

- **Estimated Help Desk Calls** defined by severity, duration, training level and description



This filter from the **Incident History** view shows the number of critical incidents over 30 minutes in duration that require a trained person and does not concern toner. (It is assumed toner is changed without help desk intervention.) This is useful for estimating how many help desk calls would be received.

SiteAudit's notification capability allows incident information to be automatically emailed to help desk, service and administrator people. The benefit of SiteAudit's rules-based notification capability is higher employee productivity as printers have better uptime performance. Knowing how to use filters is applicable to create notification rules and conditions. Both use the same menu logic.

## Reports

Filters are used to create custom reports. For example a report that shows the Top Problem Printers is created with a filter. Once the view is set go to **File → Print Preview** to generate the report. (See the Making Custom Reports Knowledge Base article.)

## Saving Filters

A filter can be reused. Filters are listed in the bottom left part of the information Grid. Select the down arrow and a list of filters is displayed. Select a filter from the list. Modify the filter by selecting Edit Filter and modifying the filter conditions.

Facilities	IP Address	Networked	Manufacturer	Model	Count	Cost	AVR	Color	Status	
Floor 4	GILLIGAN 168.177.242.116	Networked	Hewlett-Packard	hp LaserJet 4250	2,859	\$100.07	\$0.035	0.0018	0.009 B/W	Active
Floor 5	AG 168.177.242.119	Networked	Hewlett-Packard	hp LaserJet 4200	800	\$28.00	\$0.035	0.0005	0.015 B/W	Active
Facilities	THURSTON 168.177.242.120	Networked	Hewlett-Packard	hp LaserJet 4250	4,035	\$141.23	\$0.035	0.0026	0.007 B/W	Active
Floor 1	NPICSF900 168.177.242.121	Networked	Hewlett-Packard	hp LaserJet 4250	930	\$32.55	\$0.035	0.0006	0.043 B/W	Active
Floor 2	hp Laser		[Manufacturer] Like '%Hewlett%' Or [Manufacturer] Like '%Canon%'		1,228	\$42.98	\$0.035	0.0008	0.008 B/W	Active
	NPISFE		[Manufacturer] Like '%Hewlett%' And [Manufacturer] Like '%Canon%'		643	\$22.51	\$0.035	0.0004	0.058 B/W	Active
	HP Laser		[Manufacturer] Like '%Hewlett%' And [Manufacturer] = 'Canon'		169	\$5.92	\$0.035	0.0001	0.006 B/W	Active
	NPIS90		[Manufacturer] Like '%Hewlett%'		3,008	\$105.28	\$0.035	0.0019	0.013 B/W	Active
	SALLY		[Manufacturer] = 'Canon' Or [Manufacturer] = 'SHARP'		437	\$43.46	\$0.099	0.0003	0.048 Color	Active
			[Manufacturer] = 'Canon'		14,789	\$66,960.09	AVR=.06			
			[Manufacturer] = 'Canon' Or [Manufacturer] = [Cost]							
			[Manufacturer] Like '%Hewlett%' Or [Manufacturer] Like '%Canon%' Or [Cost/Page] <= '\$0.050'							

This is a quick and easy way to generate custom reports on a regular basis. For example, use the Top Problem Printers filter to generate reports for June, July, August etc...

## Display Settings

Users have a choice of display colors for the SiteAudit view.

- Control Panel
- Display
- Appearance tab

Choose either Windows Classic or Windows XP. If Windows XP style is selected the color choices are:

- Blue (Default)
- Olive
- Silver