



# **Ink Savings as Part of a Paper & Energy Management Program**

Illinois Environmental Protection Agency  
Pilot Demonstration

March 2011

# Main Objectives of Pilot

- Find an enterprise solution to help manage desktop printing
- Reduce printer inventory by 10 %
  - Analysis of printing statistics revealed other areas of opportunity
- Reduce carbon footprint

# Reduce Printer Inventory

## Illinois Green IT Challenge Objectives

- Illinois Green Governments Coordinating Council target is minimum 10% reduction in use of currently operational imaging devices statewide.
- The imaging devices targeted for reduction include:
  - Single-user desktop printers
  - Under-utilized printers
  - Under-utilized or single-feature photocopiers
  - Stand-alone faxes
  - Stand-alone scanners

# Printer Inventory

Many solutions are available that can capture networked printers.

- Report printer statistics and usage
- Manage print workflow
- Force default print options (duplex)
- Eco mode printing
- Quota levels for amount of pages

# Reduce Carbon Footprint

Should be the underlying objective (framework)

- Ultimate effect not only respectful of the environment but can also:

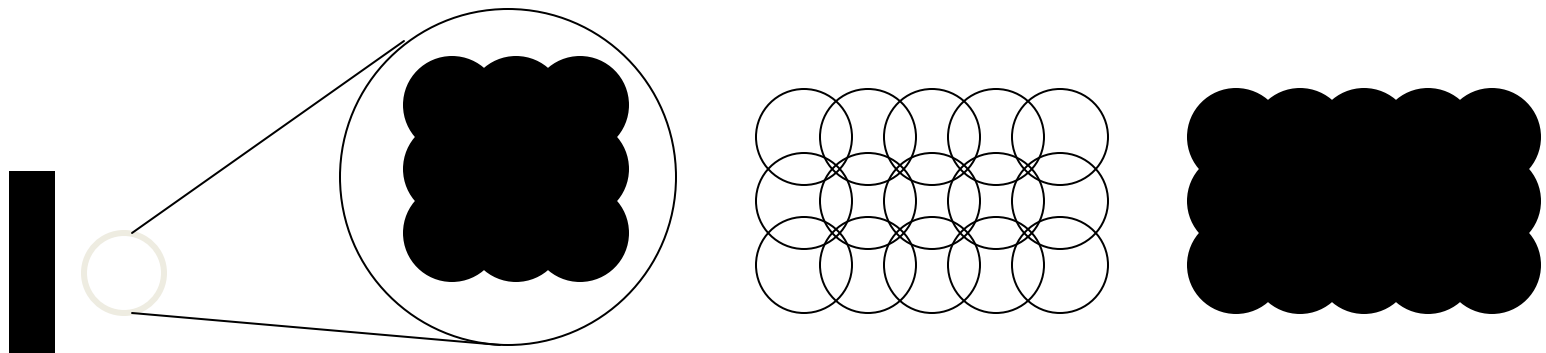
- Reduce overall printing costs

- Cause more efficient operations

# IL EPA's Pilot Solution

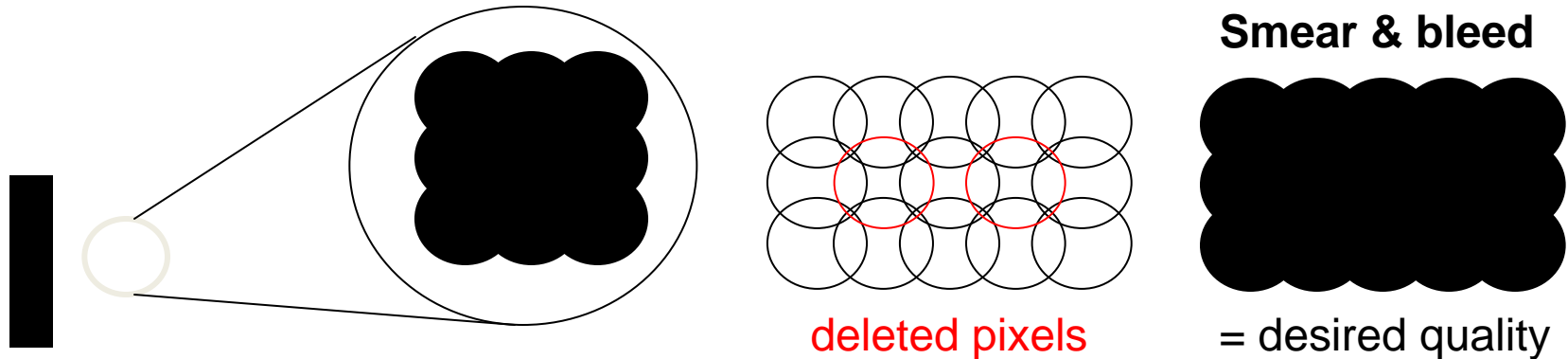
- **PretonSaver** - is a print optimization software that advertises reduction of print ink/toner usage, thereby providing savings of 25 - 50% in toner/ink costs
- **Enterprise-wide Print Management** - using a PC-client based software, capture all printing statistics & can help with default settings, quota management, & statistics for analysis

# Normal Printing



**Pixels are printed in a structured formation with significant overlap between pixels.**

# PIXEL OPTIMIZER™ TECHNOLOGY



PretonSaver deletes pixels that are not required to maintain high quality printing. This is done, in part, by accounting for toner “smear” or ink “bleed.”

## Results:

- Less toner or ink used, *without lowering required quality*
- Typical savings range from 25% - 50%





# PIXEL OPTIMIZER™ TECHNOLOGY

(When printed, overlapping pixels smear or bleed to fill in gaps)

fox



fox



when printed

This is how Preton can save 30% of toner/ink, without lowering quality.

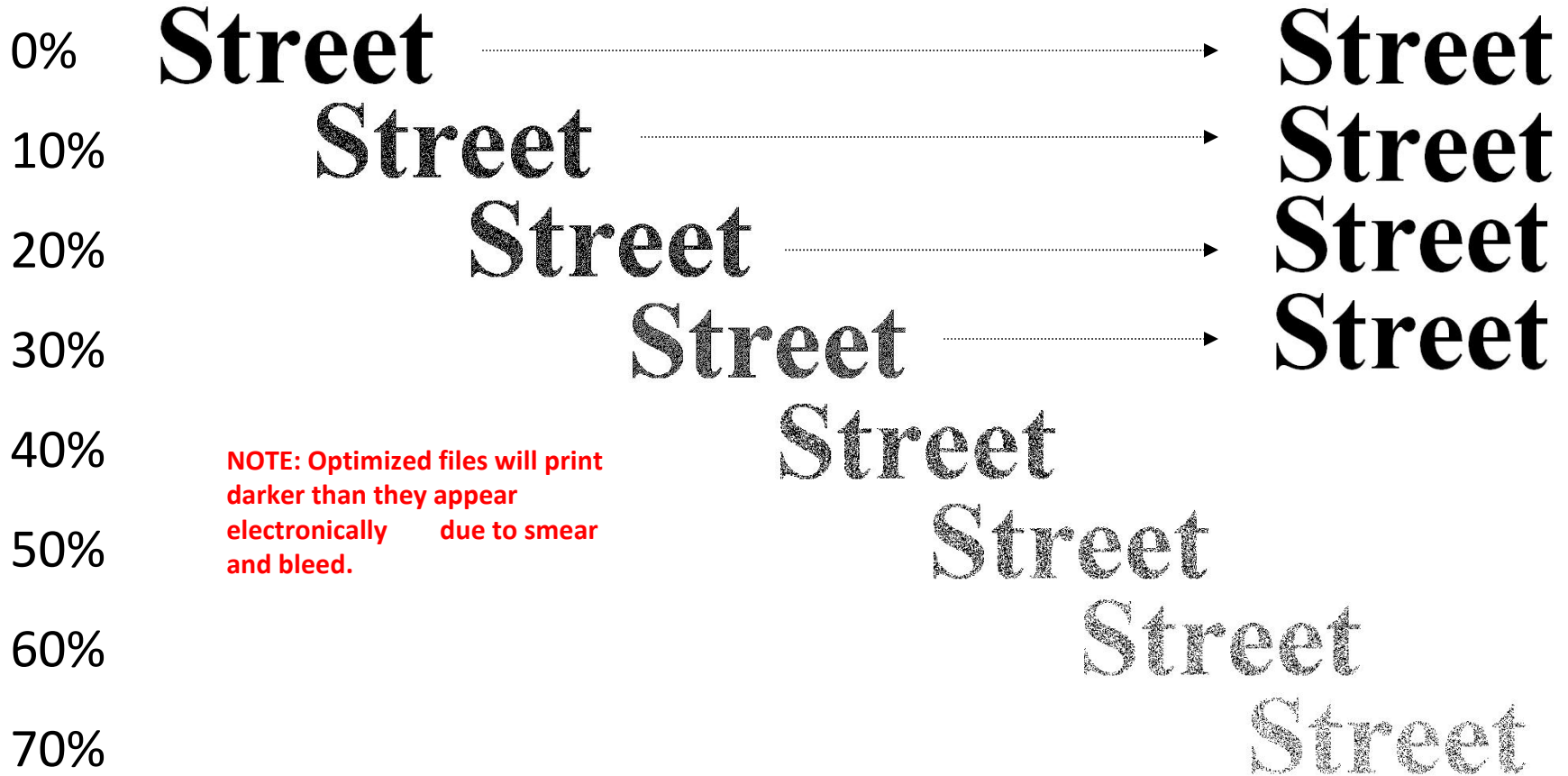
# PRETONSAVER™ – Electronic Files Optimized

Range from 0-70% Savings

Savings Levels Can

Savings: **Electronic files...**

**After Printing...**

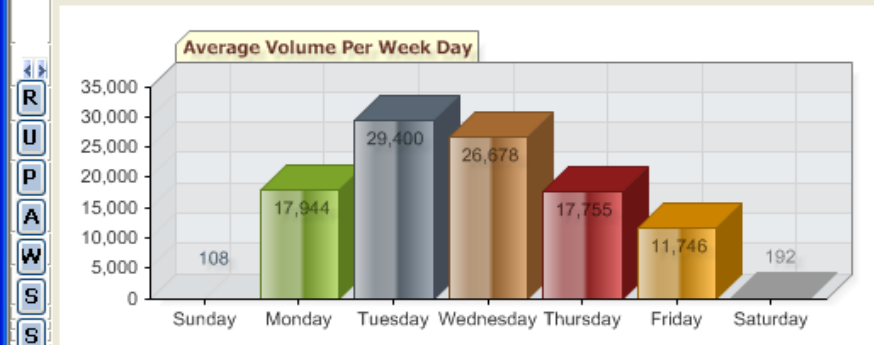
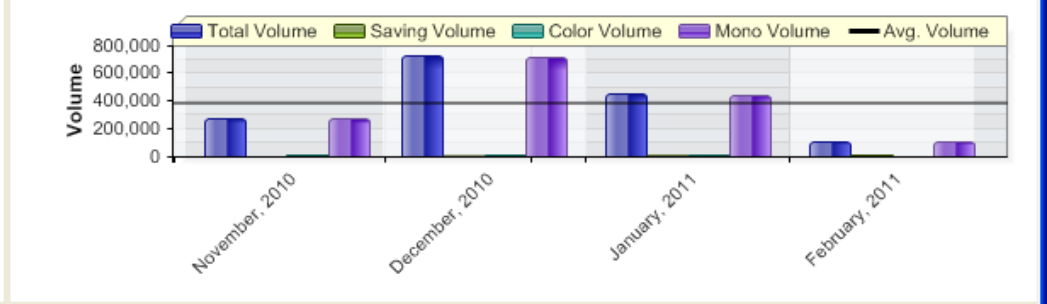
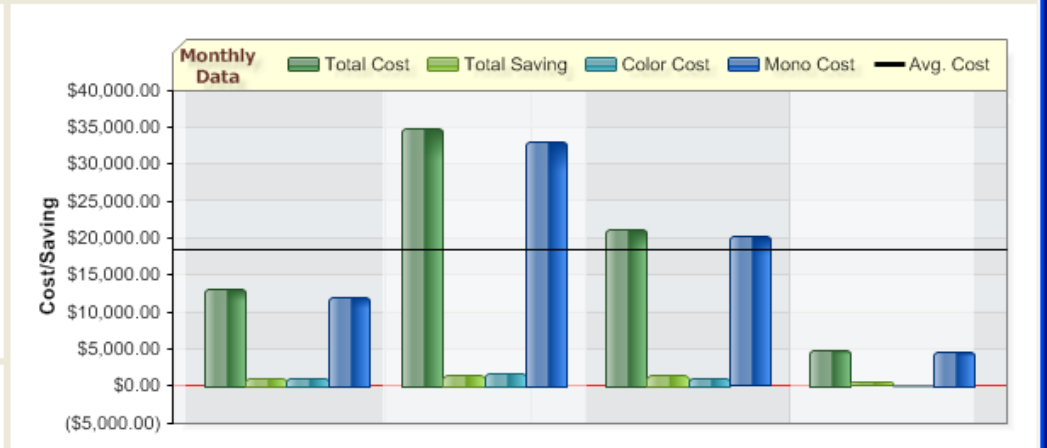
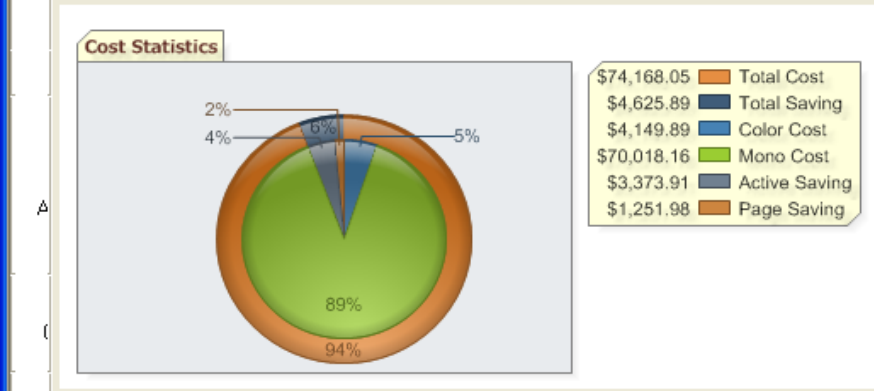
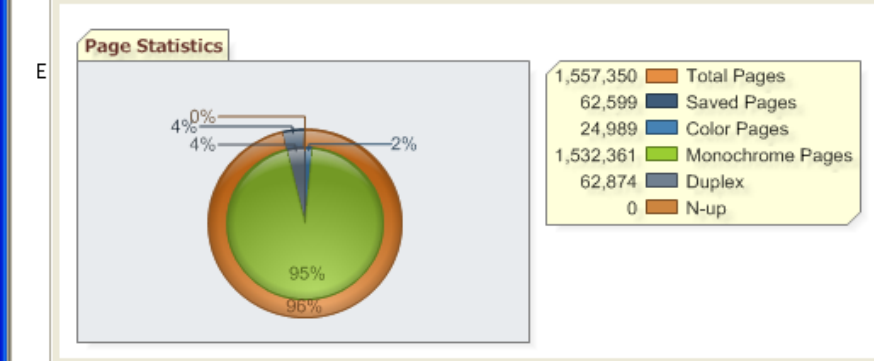


Overview

Refresh Reset Last Week Last Month Last 3 Months Last Year Range Start - 11/ 9/2010 End - 2/ 9/2011 Row Limit - 500 Include Subgroups

Group Filter Deleted Clear On Printer Filter Clear Off

User Filter Clear Off Application Filter Clear Off



### Statistics

<b>Average Page Cost</b>	<b>Average Pages Per Day</b>	<b>Average Pages Per Month</b>
Total: \$0.05	Total: 16745.7	Total: 389337.5
Color: \$0.17	Color: 268.7	Color: 6247.25
Monochrome: \$0.05	Monochrome: 16477	Monochrome: 383090.25
<b>Average Jobs Per Day</b>	<b>Average Pages Per Job</b>	<b>Average Job Cost</b>
Total: 2622.2	Total: 6.39	Total: \$0.30
Color: 34.75	Color: 7.73	Color: \$1.28
Monochrome: 2587.45	Monochrome: 6.37	Monochrome: \$0.29

# Environmental Benefits Reported

PretonSaver Data			
Date	Kg CO2 Saved	Saved Pages	Trees Saved
Feb. 2011	234.3	7,300	0
Jan. 2011	706.5	21,936	2
Dec. 2010	604.4	18,720	2
Nov. 2010	472.3	14,678	1

# Types of Data Reported

Date	Print Job Pages*	Printed Pages**	Printed Sheets	Color Pages	Mono-chrome Pages	Total Cost*** (\$)	Ink/Toner Cost (\$)	Ink/Toner Savings (\$)	Saved Pages	Total Savings (\$)
Feb. 2011	104,759	104,768	97,459	1,860	102,908	5,000	3,051	343	7,300	489
Jan. 2011	454,087	454,092	432,151	6,809	447,283	21,224	12,581	1,084	21,936	1,523
Dec. 2010	723,022	723,240	704,302	101,171	622,069	34,844	20,758	1,182	18,720	1,557
Nov. 2010	276,402	276,445	261,724	6,170	270,275	13,157	7,923	767	14,678	1,061

\* Print Job Pages = Logical pages included in the original document

\*\*Printed Pages = Printer page count. Duplex – is side is counted as a page.

\*\*\* Total cost = Paper + ink/toner

# Results by Individual

User	Printed Pages	Color Pages	Mono-chrome Pages	Total Cost (\$)	Ink/Toner Cost (\$)	Ink/Toner Savings (\$)	Saved Pages	Total Savings (\$)
D532L06395\richard.jordan	515,362	0	515,362	24,733	14,426	5	5	5
D532L06394\jill.glisson	298,855	0	298,855	14,326	8,358	7	446	16
D532L06135\carol.bennett	24,839	1	24,838	1,178	681	3	0	3
D532L06400\dave.gambach	23,192	0	23,192	1,109	646	1	23	2
D532L06396\jan.ogden	23,638	0	23,638	1,102	630	8	48	7
V532A49954V01\Tom.Reuter	3,724	2,427	1,297	825	751	162	16	162
D532A41572\janet.christer	13,699	0	13,699	627	353	5	0	5
V532A43646\Tom.Reuter	7,409	0	7,409	356	207	0	0	0
D532A41984\Amy.Turner	7,248	0	7,248	349	204	1	0	1
D532A49521\Jewel.Brant	6,663	0	6,663	315	182	6	0	6
D532A48962\vicky.vonlanken	6,919	2	6,917	314	176	6	0	6
D532A48242\michael.reed	6,480	0	6,480	285	179	55	1,197	79
D532L03491\Carolyn.Wright	6,286	12	6,274	280	154	7	5	7
D532A49815\Brian.Godsil	5,911	0	5,911	279	161	2	0	2
D532A48266\Chris.Price	5,306	23	5,283	256	150	3	0	3
D532A48912\Brenda.Jones	5,791	17	5,774	244	134	33	304	39

# Results by Software Type

PretonSaver Data									
Application	Printed Pages	Color	Mono-chrome	Total Cost (\$)	Ink/Toner Cost (\$)	Ink/Toner Savings (\$)	Ink Coverage (%)	Saved Pages	Total Savings (\$)
MS Word	213,486	10,305	20,3181	8,789	5,021	1,456	0.06	25,120	1,958
DocuWare PDF	134,295	0	134,295	6,443	3,760	0	0.07	149	3
Internet Explorer	101,471	6,294	95,177	6,177	4,404	1,143	0.12	12,800	1,399
AcroRd32	116,069	1,832	114,237	5,338	3,327	0	0.07	15,314	306
MSACCESS	73,868	1,094	72,774	3,581	2,114	0	0.07	532	11
Acrobat	37,675	107	37,568	1,759	1,059	0	0.07	2,691	54
MS Outlook	44,825	1,004	43,821	1,400	563	339	0.05	2,968	399
MS Excel	35,014	1,844	33,170	1,375	699	199	0.06	1,216	223
MS PowerPoint	6,724	1,247	5,477	1,144	1,029	226	0.4	967	245
bzmd	6,508	10	6,498	313	183	0	0.07	0	0
UtlViewer	5,656	0	5,656	271	158	0	0.07	0	0
dwreader	5,125	73	5,052	246	147	0	0.07	148	3
R30RBE32	3,030	0	3,030	145	85	0	0.07	0	0
Ptpie	2,249	0	2,249	108	63	0	0.07	0	0
VISIO	1,899	85	1,814	95	57	0	0.07	1	0
Firefox	785	129	656	69	54	13	0.2	18	14
PFPPOP80	933	0	933	45	26	0	0.07	0	0
Chrome	989	0	989	45	28	0	0.07	135	3

# Examples of Results by Printer

PretonSaver Data								
Printer	Printed Pages	Color Pages	Mono-Chrome Pages	Total Cost (\$)	Ink/Toner Cost (\$)	Ink/Toner Savings (\$)	Saved Pages	Total Savings (\$)
D532L06395\DocPrinter PDF Pro	514,048	0	514,048	24,674	14,393	0	0	0
10.16.145.13	19,809	0	19,809	933	541	9	230	14
10.16.151.25	19,303	0	19,303	927	541	12	0	12
V532A49954V01\DocuWare TIFFMAKER 5	3,363	2,257	1,106	801	734	161	0	161
D532A49734\DocPrinter PDF Pro	15,615	0	15,615	750	437	0	0	0
IEPA_TREE\NDPS_BOL_HP5100DTN_164.BOL.IEPA	15,310	0	15,310	628	331	69	491	79
IEPA_TREE\NDPS_ADM_DLC_HP8150C.DLC.ADM.IEPA	16,852	0	16,852	620	420	85	6,835	222
IEPA_TREE\NDPS_ADM_DOA_HP8150.DOA.ADM.iepa	13,654	0	13,654	599	330	20	193	24
IEPA_TREE\NDPS_MAY_LEXT642.MAY.REG.IEPA	12,801	0	12,801	559	322	65	926	83
IEPA_TREE\NDPS_ADM_DLC_HP8150.DLC.ADM.IEPA	14,263	0	14,263	551	353	57	4,389	145
IEPA_TREE\NDPS_ADM_EP_HP8150.EP.ADM.IEPA	13,349	0	13,349	516	304	46	2,786	101
D532A41984\Lexmark T644	7,248	0	7,248	349	204	1	0	1
IEPA_TREE\NDPS_BOL_HP5500dtn_195.BOL.IEPA	2,502	1,508	994	347	309	74	559	86
V532A43646\DocPrinter PDF Pro	6,993	0	6,993	336	196	0	0	0
IEPA_TREE\NDPS_SPF_KY9120DN.IEPA	4,514	0	4,514	318	239	45	553	56
10.16.151.10	6,663	0	6,663	315	182	6	0	6
IEPA_TREE\NDPS_ADM_DOA_LEXT642_A.DOA.ADM.iepa	6,769	0	6,769	307	172	7	0	7



# Summary

- Printer Management
- Lessons Learned
- Q & A

# Printer Management Software

- Many solutions available (take your time)
- Be prepared to discover the hidden advantages
- Goals should be long term & structured towards sustainability

# Lessons Learned

- Communication
- ePrinting
- End-user support
- Upper management support



# Discussion



Q & A's?

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