

# Cost-per-Print Methodology:

# HP Business Inkjet 1000 vs. Canon PIXMA iP4000

## Cost-per-Print of four test documents

### ° *Determine Ink Cartridge Yields – the average number of prints-per-cartridge for each cartridge*

- Test files printed semi-continuously, HP-supplied and *SpencerLab* Printer Test Suite
  - Black Text, *Dignissimas2*
  - Mixed Text & Graphics, *Erolm Msupi*
  - News Letter, *SpencerLab LC Newsletter*
  - PowerPoint Slide, *SpencerLab Boise 5a*
- Cartridges judged to be at “end-of-life” at the earlier of an ‘Ink Out’ signal on the control panel or when test prints show visible defects attributable to ink supply
  - HP BIJ 1000: ‘Ink Out’ signal provided on printer control panel
  - Canon PIXMA iP4000: ‘Ink Out’ signal provided on printer control panel (BJ Status Monitor)
- Test high-capacity OEM inks, where available
  - HP #10 Black and #11 individual C, M, Y cartridges
  - Canon inks only one size available
- Testing is repeated over multiple cartridges to assure consistency

### ° *Calculate ink component cost-per-print*

- Divide each cartridge cost by the corresponding cartridge yield (average prints-per-cartridge)

### ° *Calculate other user-replaceable component pro-rata costs*

- *HP BIJ 1000 contains user-replaceable printheads; therefore, include printhead cost in total Cost-per-Print*
- *Although the Canon PIXMA iP4000 printhead can be replaced, it does not have a scheduled life nor should it be replaced under typical usage; therefore, do not include in total Cost-per-Print*

### ° *Sum these component costs to obtain total Cost-per-Print for the test document*



# Methodology... (con't)

# HP Business Inkjet 1000 vs. Canon PIXMA iP4000

° *Print Modes: default on Plain paper*

° *Test Document Coverage Estimates*

- *Ink Coverage: the sum of the parts of the total page covered by each primary – Cyan, Magenta, Yellow, Black*
  - *Ink coverage varies considerably with each individual printer and mode – SWOP coverage is indicated for reference*
- *Page Coverage: the part of the total page covered by any color (color can include multiple primaries)*

SWOP Coverages	Page	cyan	magenta	yellow	black	Ink
<i>Black Text</i>	4.1%				4.1%	4.1%
<i>Mixed Text &amp; Graphics</i>	9.6%	3.3%	2.4%	0.3%	8.3%	14.3%
<i>News Letter</i>	12.3%	4.5%	4.1%	2.9%	9.8%	21.3%
<i>PowerPoint Slide</i>	14.1%	10.1%	10.5%	7.7%	3.9%	32.2%

° *Cartridge and Printhead Prices*

Component Costs		cyan	magenta	yellow	Pigment black	Dye black
<i>HP BIJ 1000</i>	<i>Ink</i>	\$ 50.00	\$ 50.00	\$ 50.00	\$ 50.00	
	<i>Printhead</i>	\$ 53.00	\$ 53.00	\$ 53.00	\$ 53.00	
<i>Canon PIXMA iP4000</i>		\$ 22.00	\$ 22.00	\$ 22.00	\$ 19.00	\$ 22.00

AUD prices incl. 10% GST as of 01/08/05 per Harris Technology, [www.ht.com.au](http://www.ht.com.au)

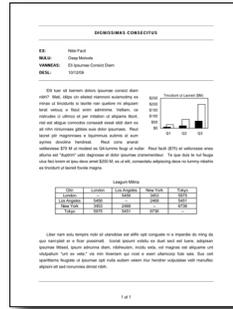
•Independent testing by *SpencerLab* Digital Color Laboratory was sponsored by Hewlett-Packard Company



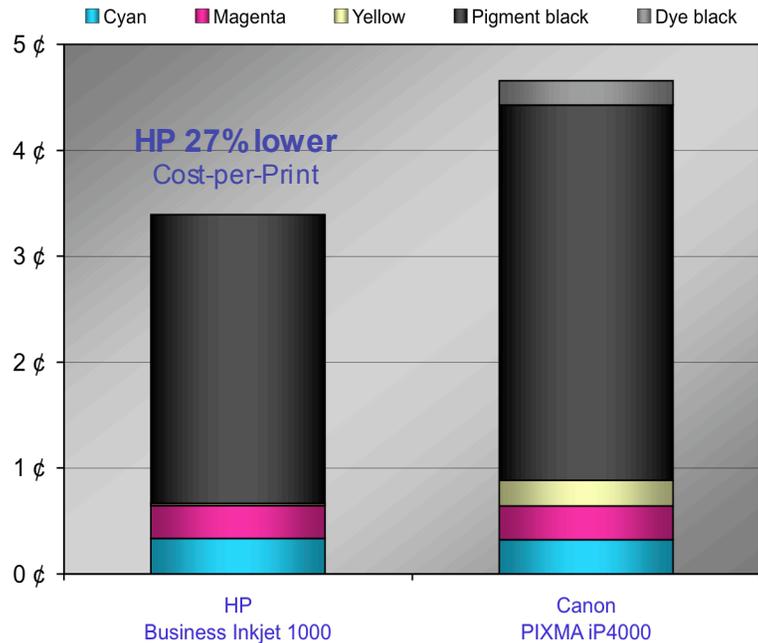
# Cost-per-Print: Australian cents –

# HP Business Inkjet 1000 vs. Canon PIXMA iP4000

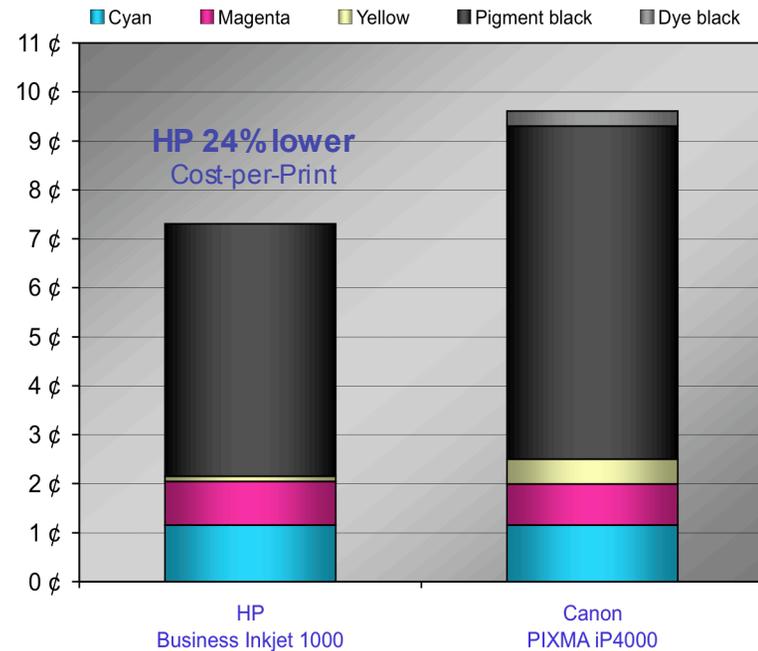
**spencerLAB**  
COST-PER-PRINT TESTED



**BLACK TEXT**



**MIXED TEXT & GRAPHICS**



Cost-per-Print includes Ink costs only.

All testing performed using default driver settings. AUD prices incl. 10% GST as of 01/08/05 per Harris Technology, [www.htc.com.au](http://www.htc.com.au)

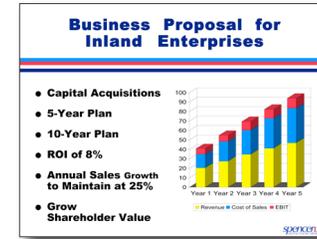


[www.spencerlab.com](http://www.spencerlab.com)

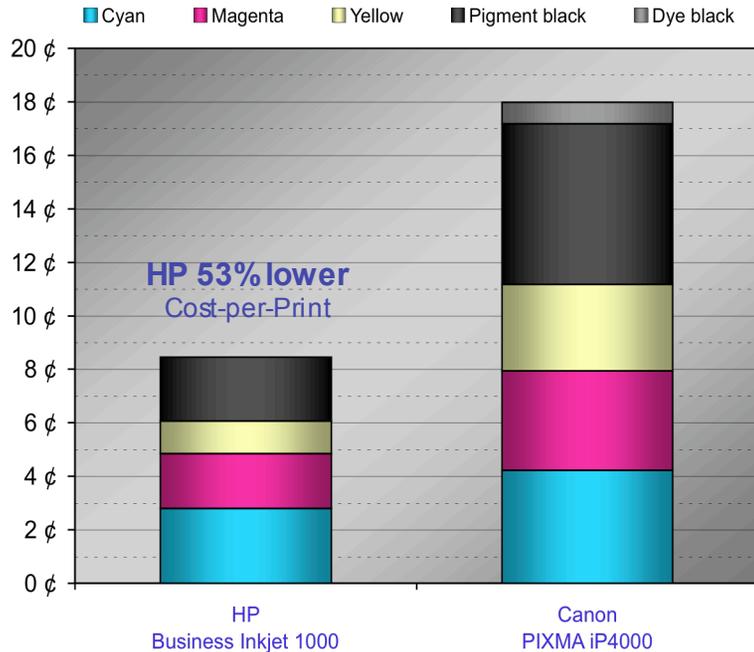
**spencerLAB**  
DIGITAL COLOR LABORATORY

# Cost-per-Print: Australian cents – HP Business Inkjet 1000 vs. Canon PIXMA iP4000

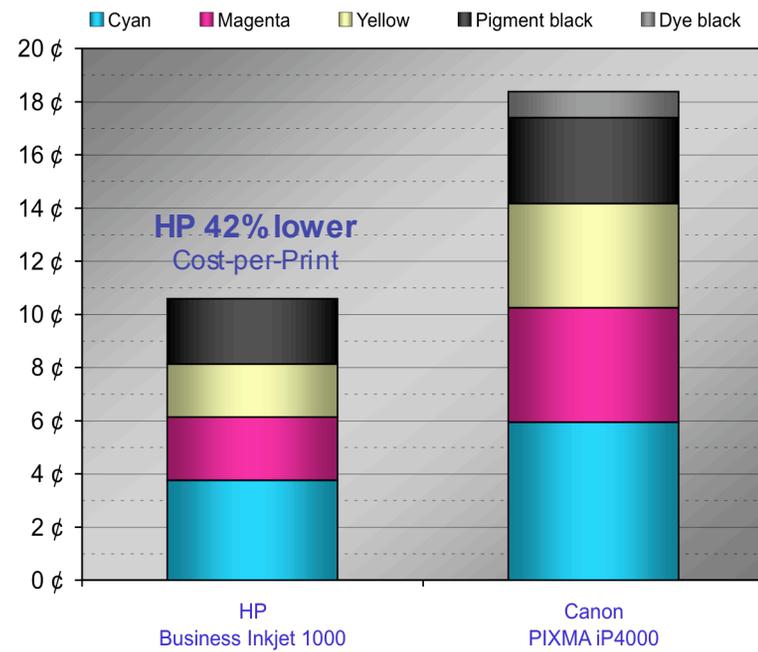
**spencerLAB**  
COST-PER-PRINT TESTED



**NEWS LETTER**



**POWERPOINT SLIDE**



Cost-per-Print includes Ink costs only.

All testing performed using default driver settings. AUD prices incl. 10% GST as of 01/08/05 per Harris Technology, [www.ht.com.au](http://www.ht.com.au)

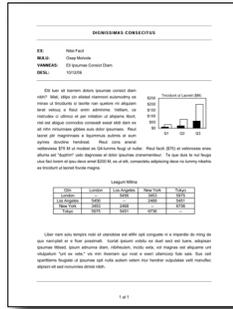


[www.spencerlab.com](http://www.spencerlab.com)

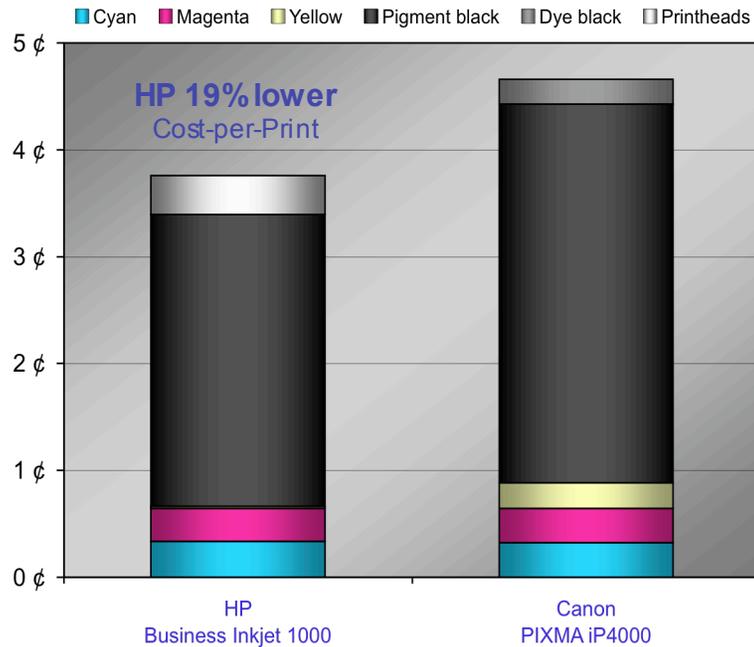
**spencerLAB**  
DIGITAL COLOR LABORATORY

# Cost-per-Print: Australian cents – HP Business Inkjet 1000 vs. Canon PIXMA iP4000

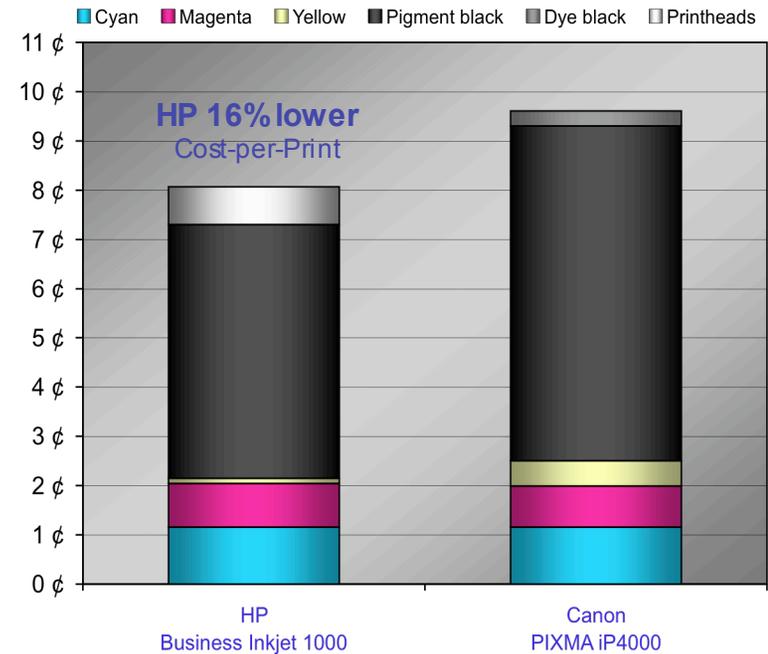
**spencerLAB**  
COST-PER-PRINT TESTED



**BLACK TEXT**



**MIXED TEXT & GRAPHICS**



Cost-per-Print includes Ink and HP printhead costs.

All testing performed using default driver settings.  
AUD prices incl. 10% GST as of 01/08/05 per Harris Technology, [www.ht.com.au](http://www.ht.com.au)



[www.spencerlab.com](http://www.spencerlab.com)

**spencerLAB**  
DIGITAL COLOR LABORATORY

