Why You Should Care About kibis

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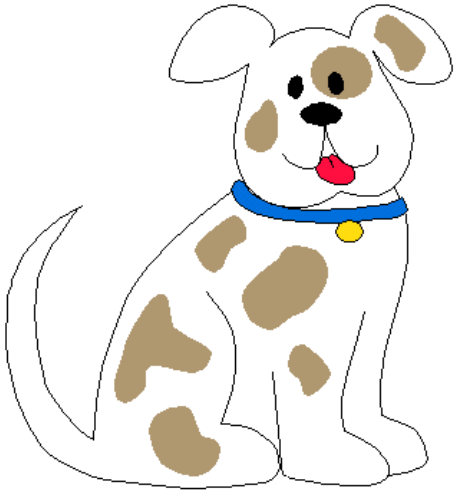
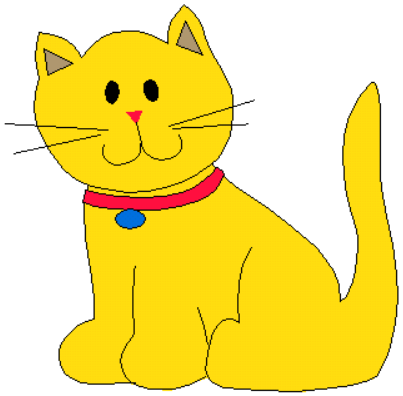
What do you think of when you hear “kibi”?



?



or mebi something else?

P1541 ~~Draft~~ Standard Prefixes for Binary Multiples

- The prefixes given in Table 1 shall be used to indicate multiplication by 2^{10n}, where n = 1,2,3,4,5, or 6.

Factor	Name	Symbol	Origin	Related SI Prefix	Examples
2^{10}	kibi	Ki	kilobinary: (2^{10})	kilo: (10^3) k	Kib = 1.024 kb
2^{20}	mebi	Mi	megabinary: $(2^{10})^2$	mega: $(10^3)^2$ M	MiB ≈ 1.0486 MB
2^{30}	gibi	Gi	gigabinary: $(2^{10})^3$	giga: $(10^3)^3$ G	Gio ≈ 1.0737 Go
2^{40}	tebi	Ti	terabinary: $(2^{10})^4$	tera: $(10^3)^4$ T	Tib ≈ 1.0995 Tb
2^{50}	pebi	Pi	petabinary: $(2^{10})^5$	peta: $(10^3)^5$ P	PiB ≈ 1.1259 PB
2^{60}	exbi	Ei	exabinary: $(2^{10})^6$	exa: $(10^3)^6$ E	Eio ≈ 1.1529 Eo

- The SI prefixes shall not be used to denote multiplication by powers of two.

Alternatives to kibis

- Assuming that the imprecision associated with using decimal prefixes when discussing binary multiples is worth addressing, there are alternatives to the introduction of new prefixes:
  - Write the precise value in expanded form, e.g. 65 536 bytes, rather than 64 kB
  - Write the precise value in exponential form, e.g. 2^{16} bytes

1541 Current Status

- Forming sponsor reaffirmation ballot pool
- Any IEEE-SA member can join the pool
  - via MyBallot
- Invitation closes April 5