Text Paragraph alignment

The basic need for a binary-to-text encoding comes from a need to communicate arbitrary binary data over preexisting communications protocols that were designed to carry only English language human-readable text. Those communication protocols may only be 7-bit safe (and within that avoid certain ASCII control codes), and may require line breaks at certain maximum intervals, and may not maintain whitespace. Thus, only the 95 printable ASCII characters are "safe" to use to convey data.

Four bytes can represent 232 = 4,294,967,296 possible values. Five radix-85 digits provide 855 = 4,437,053,125 possible values, enough to provide for a unique representation for each possible 32-bit value. Because five radix-84 digits only provide 845 = 4,182,119,424 representable values, 85 is the minimum possible integral base that will represent four bytes in five characters, hence its choice.

When encoding, each group of 4 bytes is taken as a 32-bit binary number, most significant byte first (Ascii85 uses a big-endian convention). This is converted, by repeatedly dividing by 85 and taking the remainder, into 5 radix-85 digits. Then each digit (again, most significant first) is encoded as an ASCII printable character by adding 33 to it, giving the ASCII characters 33 ("!") through 117 ("u").

Because all-zero data is quite common, an exception is made for the sake of data compression, and an allzero group is encoded as a single character "z" instead of "!!!!!".

Groups of characters that decode to a value greater than 232 – 1 (encoded as "s8W-!") will cause a decoding error, as will "z" characters in the middle of a group. White space between the characters is ignored and may occur anywhere to accommodate line-length limitations.

One disadvantage of Ascii85 is that encoded data may contain escape characters such as backslash and quote, which have special meaning in many programming languages and in some text-based protocols. Other base-85 encodings like Z85 are designed to be safe in source code.[2]

Text styles

word1 <u>word2</u> word3 word4 <u>word5</u> <u>word6</u> word7 <u>word8</u> word9 word10 <u>word11</u> <u>word12</u> word13 word14 word15 word16 word17 word18 <u>word19</u> word20

Hyperlinks

Ascii85, also called **Base85**, is a form of <u>binary-to-text encoding</u> developed by Paul E. Rutter for the <u>btoa</u> utility. By using five <u>ASCII</u> characters to represent four bytes of <u>binary data</u> (making the encoded

size $\frac{1}{4}$ larger than the original, assuming eight bits per ASCII character), it is more efficient than <u>uuencode</u> or <u>Base64</u>, which use four characters to represent three bytes of data ($\frac{1}{3}$ increase, assuming eight bits per ASCII character).

Its main modern uses are in <u>Adobe</u>'s <u>PostScript</u> and <u>Portable Document Format</u> file formats, as well as in the <u>patch</u> encoding for <u>binary files</u> used by <u>Git</u>.^[1]

Lists

Bullets

- Between 1947 and 1950 the territories of the princely states were politically integrated into the Indian Union.
- Most were merged into existing provinces; others were organised into new provinces, such as Rajputana, Himachal Pradesh, Madhya Bharat, and Vindhya Pradesh, made up of multiple princely states; a few, including Mysore, Hyderabad, Bhopal, and Bilaspur, became separate provinces.
- The new Constitution of India, which came into force on 26 January 1950, made India a sovereign democratic republic. The new republic was also declared to be a "Union of States".
- The constitution of 1950 distinguished between three main types of states:
 - Part A states, which were the former governors' provinces of British India, were ruled by an elected governor and state legislature.
 - The nine Part A states were Assam, Bihar, Bombay, Madhya Pradesh (formerly Central Provinces and Berar), Madras, Orissa, Punjab (formerly East Punjab), Uttar Pradesh (formerly the United Provinces), and West Bengal.
 - The eight Part B states were former princely states or groups of princely states, governed by a rajpramukh, who was usually the ruler of a constituent state, and an elected legislature. The rajpramukh was appointed by the President of India.
 - The Part B states were Hyderabad, Jammu and Kashmir, Madhya Bharat, Mysore, Patiala and East Punjab States Union (PEPSU), Rajasthan, Saurashtra, and Travancore-Cochin.
 - The ten Part C states included both the former chief commissioners' provinces and some princely states, and each was governed by a chief commissioner appointed by the President of India.
 - The Part C states were Ajmer, Bhopal, Bilaspur, Coorg, Delhi, Himachal Pradesh, Cutch, Manipur, Tripura, and Vindhya Pradesh.
 - The only Part D state was the Andaman and Nicobar Islands, which were administered by a lieutenant governor appointed by the central government.
- The Union Territory of Puducherry was created in 1954 comprising the previous French enclaves of Pondichéry, Karaikal, Yanam and Mahé. Andhra State was created on 1 October 1953 from the Telugu-speaking northern districts of Madras State.
- The States Reorganization Act of 1956 reorganized the states based on linguistic lines resulting in the creation of the new states.

- Andhra Pradesh was created with the merger of Andhra State with the Telugu-speaking districts of Hyderabad State in 1956.
- Mysore State was re-organized with the addition of districts of Bellary and South Canara (excluding Kasaragod taluk) and the Kollegal taluk of Coimbatore district from the Madras State, the districts of Belgaum, Bijapur, North Canara and Dharwad from Bombay State, the Kannada- majority districts of Bidar, Raichur and Gulbarga from Hyderabad State and the province of Coorg...

Numbered list

- 1. Here is the first paragraph with some text. This text was taken from Wikipedia.
- 2. The route starts at the intersection of SR-126 (Main Street) and Gentile Street
- 3. Union Pacific Railroad, as well as the Layton Frontrunner station.
- 4. From here, the route travels east along Gentile Street, almost immediately crossing
- 5. Item e: Here is the first paragraph with some text. This text was taken from Wikipedia.
- 6. Item f: The route starts at the intersection of SR-126 (Main Street) and Gentile Street
- 7. Item g: Union Pacific Railroad, as well as the Layton Frontrunner station.
- 8. Item h: From here, the route travels east along Gentile Street, almost immediately crossing
- 9. Item i: Here is the first paragraph with some text. This text was taken from Wikipedia.
- 10. Item j: The route starts at the intersection of SR-126 (Main Street) and Gentile Street

Lettered list

- a. Here is the first paragraph with some text. This text was taken from Wikipedia.
- b. The route starts at the intersection of SR-126 (Main Street) and Gentile Street
- c. Union Pacific Railroad, as well as the Layton Frontrunner station.
- d. From here, the route travels east along Gentile Street, almost immediately crossing
- e. Item e: Here is the first paragraph with some text. This text was taken from Wikipedia.
- f. Item f: The route starts at the intersection of SR-126 (Main Street) and Gentile Street
- g. Item g: Union Pacific Railroad, as well as the Layton Frontrunner station.
- h. Item h: From here, the route travels east along Gentile Street, almost immediately crossing
- i. Item i: Here is the first paragraph with some text. This text was taken from Wikipedia.
- j. Item j: The route starts at the intersection of SR-126 (Main Street) and Gentile Street

Images Floating (inlined) images

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Behind Be

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Rotated images

Rotation 45 degrees:



Rotation 90 degrees:



Rotation 180 degrees:



Rotation 315 degrees:



Full page image

Chorus

SATB

The Star Spangled Banner

(as performed by The United States Air Force Band & Singing Sergeants)



The USAF Band, Washington, DC

Tables Normal tables

Volume servers in: 2007 2008 2009 2010 2011 Server closets 1,870 1,945 2,023 2,104 2,188 2,400 2,660 2,925 Server rooms 3,213 3,642 2,060 2,283 2,510 2,757 Localized data centers 3,126 Mid-tier data centers 1,860 2,062 2,267 2,490 2,823 4,033 4,435 4,871 Enterprise-class data centers 3,639 5,522 Total volume 11,829 12,982 14,160 15,434 17,300 2007 2008 Mid-range servers in: 2009 2010 2011 0 0 0 0 0 Server closets 17 16 16 15 Server rooms 17 Localized data centers 55 53 52 52 48 Mid-tier data centers 49 48 47 46 43 Enterprise-class data centers 226 219 214 212 198 347 330 326 304 Total mid-range 336 High-end servers in: 2007 2008 2009 2010 2011 Server closets 0 0 0 0 0 0 0 Server rooms 0 0 0 2 Localized data centers 3 3 2 2 Mid-tier data centers 3 2 2 2 2 Enterprise-class data centers 13 10 12 11 11 Total high-end 18 17 16 15 15

Table A4-1. Projected U.S. Installed Server Base (in 1000s)

by Server Class and Space Type, Current Efficiency Trends Scenario, 2007 to 2011

Table A4-2. Projected U.S. Installed Base of Volume Servers (in 1000s) bySpace Type, Historical Trends Scenario, 2007 to 2011

Volume servers in:	2007	2008	2009	2010	2011
Server closets	1,873	1,971	2,079	2,190	2,271
Server rooms	2,408	2,731	3,088	3,475	3,918
Localized data centers	2,067	2,351	2,665	3,005	3,385
Mid-tier data centers	1,867	2,123	2,407	2,714	3,057
Enterprise-class data centers	3,652	4,154	4,709	5,310	5,980
Total volume	11,866	13,330	14,949	16,693	18,611

Table without gridlines

Retained Earnings at beginning of Interim Period	1,107,231
Increase	2,426
Effect of the Decrease of Affiliates	21
Transfer from Revaluation Reserve for Land	2,404
Decrease	43,408
Dividends	43,407
Bonuses to Directors and Corporate Auditors	0
Net Loss	264,637
Retained Earnings at end of Interim Period	801,612

(Notes) Amounts less than one million yen are rounded down.