i-Mode - Using CHTML

In consideration of the inherently limited bandwidth of the cellular network, i-Mode employs Compact HTML (C-HTML), a simplified version of HTML similar to Wireless Markup Language (WML) used in WAP networks and as well as DoCoMo proprietary protocols ALP (HTTP) and TLP (TCP, UDP).

i-Mode-compatible HTML websites are easy to navigate since all basic operations can be performed using a combination of four buttons, cursor forward, cursor backward, select, and back (return to previous page).

There are functions that require two-dimensional navigation such as image maps and functions that require more intensive processing such as frames and tables are not included in the standard i-Mode HTML specifications.

i-Mode-compatible HTML provides extended tags for special use on cell phones such as the 'tel:' tag, which is used to hyperlink a telephone number and let users initiate a call by clicking on a link.

Following major features of HTML have not been included in i-Mode compatible HTML, i.e., cHTML –

- Background colors and images
- Frames
- Image maps
- JPEG images
- Multiple character fonts and styles
- Style sheets
- Tables

cHTML compliance hardware includes –

- **Small memory** – 128-512Kbytes RAM, and 512K-1Mbytes ROM.
- **Low power CPU** – 1-10 MIPS class CPU for embedded systems.
- **Small display** – 50x30 dots, 100x72 dots, and 150x100 dots.
- **Restricted colors** – mono-color (black and white).
- **Restricted character fonts** – only single font.

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Restricted input method – several control buttons and number buttons (0-9).

i-Mode supports 256 color GIF files. In addition, only images in GIF 87, 87a, and 89a formats can be used. The maximum size of a GIF image should be 94 x 72 dots.

The World Wide Web Consortium (www.w3.org) contains a complete listing of the cHTML tags available to developers. Also, you can visit the NTT DoCoMo site at www.nttdocomo/ser2.htm for an outline of cHTML tags available to developers.

There are millions of HTML-based content resources, various software tools, and public materials, which can be used to develop i-Mode applications.