A simple homepage server guide
for university faculties and departments

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Abstract / Introduction

With the ongoing development of the Internet and the need for university faculties and departments to make better connections within and without the immediate school environment, we felt that a guide for creating a homepage server which can house an information center and related pages made sense. Although there are many guides in English and Japanese for creating homepages, few address the specific needs of designing and implementing a complete networking system in a university setting, especially one which focuses on medical needs. We think that this guide will be easy to understand and prove useful to the Tottori University Hospital Medical School, Life Sciences and Medical Care Technology community. We would also like to see non-medical departments at Tottori University, and possibly other academic institutions in Japan and abroad use the guide and adapt it to their own needs. As it has been written with the flexibility and creativity of the reader in mind, we hope that the guide is simple enough as a framework to allow inspiration to those who wish to use it. On the other hand, enough details are given to give anyone exact instructions for having a smooth running network in operation in a very short time.

Equipment and Software

We received a grant from the Tottori University College of Medical Care Technology to buy the necessary equipment and software for implementing the Home Server: a PowerPC Macintosh 4400/200 with a Logitec 15"color monitor, a Logitec LMO-230H 230MB magnetic optical drive for backup of the server and Webstar 2.0J (Japanese version) for enabling the computer to be used as a server. The system used on the Power Mac was MacOS8 (Japanese version J1-8.0). All other software was provided with the computer upon purchase or downloaded from various Mac ftp servers in Japan as freeware or shareware and all costs for such were paid by private funds of the authors of this paper: Gif Builder 0.5 (English), Screen Ruler 2.0.4, Netscape Communicator 4.01a (English and Japanese), Aldus Superpaint 3.0 (English), Simpletext 1-1.4 (Japanese), ClarisWorks 4.0vl and JPEGView 3.3 (English). For scanning of pictures, newspaper articles, drawings, etc.we used a PowerPC Macintosh Performa 6310 (Japanese system J1-7.6) connected to a Epson Scanner (GT-6500ART2) using Epson Scan II software. For testing of the ease of access and maneuverability of the network at various distant points, the following computers and brousers, all in Japanese (unless specified), were mainly used: a PowerPC Macintosh Performa 6410 (MacOS J7.5.3, release 2.1 and Netscape Communicator) and 6210 (MacOS8 and Netscape 2.02), an NEC PC9821 Valuestar V13 (Windows 95 and Netscape 2.02) and a Performa 588 (MacOSJ7.5.3 and Netscape 2.02).

Planning and Design

(Note: All references and explanations to homepages in this paper are equally applicable for both English and Japanese unless

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mentioned otherwise.)

As with any type of project which involves a network, we had to sit down and draw out a plan since trying to figure out where to make links and how to organize without any definite idea can get complicated. So good planning was the first step which made things run smoothly.

Initially we needed to develop a main page with a title and logo. (Fig. 1a and 1b-Japanese and English examples) From there, we felt it would be easy for the user to go to a guide map (Fig 2-English example only) which would allow him or her to quickly go to any place in server. Also, each page would have a link back to the guide map. Each Japanese page (being the main language used in this server) would also be linked to a corresponding English page marked by "_e" at the end of the name of the file, eg. Japanese file, "staff.htm"-English file, "staff_e.htm". All English pages also were made with links to their corresponding Japanese pages.

Planning page design was difficult since there were a lot of possible ideas to choose from for set up. For all pages we decided on a basic format and design which would be aesthetically pleasing and easy on the eyes. Colors were chosen to diminish eye strain (i.e. no bright colors like red or yellow). Spacing was done symetrically, i.e. no large gaps or tighr spaces were allowed. This will be explained in a little more detail below.

In order to work with HTML code language we used a word processing program (Simple Text). (Some people prefer a homepage generating program like Page Mill). We thought that since our pages were so simple using a word processing software would be best. HTML must begin and end with the structure tags<html>and </html>, respectively as follows:

<html>

<head>

<title>Welcome to Tottori University College of Medical Care Technology</title>

</head>

</html>

As you can see, we added something else to the code. You can add a title (<title>...</title>) for your page within the header (structure tags<head>...</head>) which will show up at the top of your browser when you cue up the page. The tag (html, head) usually works as an "on" switch while the "off" switch is a slash plus the tag (/html, /head). Of course all tags and commands are put between braces<...>. The commands for break (<br>) which commands the browser to go to the next line and will leave a space, does not need an "off" switch. Neither does the command (<hr>) which will draw a line across the page-good for purposes of definitoin. Other useful tags or attributes are <body>...</body> as in <body bgcolor=...> where the "color" is a letter and/or number code sequence for making a background color, <hl>...</hl> to <h6>...</h6> for letter sizes, ... for a bold letter look, and LINK for connection to a link. (By the way, HTML Color Meister is good for finding colors and their corresponding sequence codes. Also, you can use a 6 letter sequence using zero and the letters "a" through "f" where "000000" is black and "ffffff" is white. Any combination therein will result in other colors, eg. "fff000" is dark blue.)

peaking of links, we used the code

Go to Matsuura's page

which, when you click on that link in the staff folder, you should go to Ms.Matsuura's homepage which is in the "staff" folder

nearby, i.e. on the same folder level. (Fig.4) But sometimes links are not so close. All of the staff homepages are on a deeper folder level than most of the other pages. That is, they are in folders which are in other folders, etc.buried two, three or more levels deep. To enable our users to get back to the Guide Map (Fig.2-English example only) which is on the first folder level (directy inside the main/WebStar folder) from any staff page (which are on the fourth level-See Figs.5a and b, Japanese and English examples), we had to direct the links so that the server could be reentered through the main folder and be directed to the map by the following code:

Go back to the Guide Map

We had to keep levels in mind when we were making links to all the other pages in our server. Otherwise, the command looked for a file that didn't exist where we asked it to look. If only

Go back to the Guide Map

had been written, the browser would have been looking for a file called "map _e.htm" within the immediate forder, and not where it really was-in the main/WebStar folder.

For the main page, a moving background picture was developed using Gif Builder. We simply took a series of ten drawings of swans and clouds in different positions and superimposed them on each other to make the appearance of movement-swans flying left, clouds moving right. This has been effective for faster moving machines of all types, especially ones which use Netscape Communicator. Two little pictures of swans were downloaded from the Internet, saved in Superpaint, cut and touched up where appropriate (i.e. the feet were carefully repositionedto simulate how they look in flight) and reintroduced into a new drawing file with a blue sky background and a cloud. Then the whole picture was pasted into a Gif Builder file. For the next superimposed shot, the swan was moved a little up and to the left with it wings in a slightly different position, and the clouds were brought over to the right a bit. This took some time but it brought about a nice "moving picture" of swans in movement flapping their wings and clouds rolling in the opposite direction above them. We also had to make sure that all the pictures were the same height and width. For the moving picture to work we had to use the <body> tag with the attribute "background" linking to the file:

<body background="wingsinblue.gif">.(Figs.1 a and b)

The Tottori University College of Medical Technology logo (two swans flying together) was used also on the main page as a clickable link to the Guide Map which is sort of an index page for the server system. The Guide Map was created with ClarisWorks, copied to JPEGView and then put into the "images" folder in the Webstar folder on the hard disk (i.e. NOT on the desktop). The interesting thing about creating the Guide Map was that we had to figure out how to write the HTML to make each part of the map clickable. In other words, where the map indicates "News", it was necessary to make sure that when the user clicked on any area of the News box, it would link him or her to the News page. While designing the Guide Map with ClarisWorks, two Screen Ruler applications were used for horizontal and vertical measurement of the Guide Map drawing in pixels. Then, each area corresponding to a link had to be measured with four numbers separated by commas as follows: upper right corner 1) from left and 2) from top, and lower right corner 3) from left and 4) from top. These coordinates give the parameters for the size of the area. By entering these coordinates into a properly written html code sentence, and implementing it into a file within a workable system, the result should be that you click the area and make a link to the place named on the drawing. For example,

<AREA SHAPE=rest COORDS="160, 15, 220, 50"

HREF="news/news.htm">.

This has to be included with all the other likes on the map (in this case only one more example given-a link to the Guide Map in English-"map_e.htm") within the follwing code:

<CENTER>

<IMG SRC="images/schoolmap.gif" USEMAP="#schoolmap"
BORDER=0 WIDTH="526" HEIGHT="296">

</CENTER>

<MAP NAME="schoolmap">

<AREA SHAPE=rect COORDS="160, 15, 220, 50"
HREF="news/news.htm">

<AREA SHAPE=rect COORDS="450, 15, 505, 70"
HREF="map _e.htm">

</MAP>

The other tagss included in the above code are<center>...</center> for switching centering on and off-the picture will be centered. <img src="..."usemap="..."border=...width=..."height="..."> are all written within the same two braces because they all pertain to the image, i.e. the Guide Map drawing. The tag <img...> means "image". <img src...> means "image source". <img src="schoolmap. gif"> means the image source is the picture "schoolmap. gif". After that, <...usemap="#schoolmap"...> means use the gif picture (gif is a type of picture format) named "schoolmap" as the map for coordinates to be recognized. <...border=0...> commands that there will be no border. If the number were 5 instead of 0 for border then the map would have had a slightly thick border around it when it came up on the screen. <...width="..."> and <...height="..."> are the size of the picture in pixels. All these attributes can only be used in conjunction with the tag <img...>. Finally, <mapname="...=> and </map> being and end the whole thing. By the way, whether or not we used capital or samll letters didn't seem to matter. Also, when naming an HTML file to be used as a page, we suggest that other developers refer to something which reflects the contents of the file in abbreviated form, then put a period and then htm or html after it. For example, if you make a page which gives up to date information on the hobbies of students, then you could name it "studhob. htm" or "studenthobbie. html".

Other pages were rather simpler to make, basically all of them following the same pattern. Usually there was a title aera, then a separating bar, next the main body of the page, then another separating bar, a links section ending with two separating bars. Sometimes an e-mail link at the bottom. Before and after separating bars we tried to make one space, although at times, two or three spaces looks better depending on the size of letters, whether there was a picture (in the case of faculty pages) or not, etc.

One thing that needs to be mentioned is that for pages written in Japanese (or other languages for that matter) there is a code which helps the browser, when accessing the page, to recognize which language the page is in. We put the following code in all of our Japanese pages and it seems to work well.

<meta http-equiv="Content-Type"

content-"text/html; charset=x-sjis">

Other than this, there is no difference in the use of HTML for displaying any language, eg. Korean, Arabic, Chinese, Tamil, etc. since the language being displayed has nothing to do with the actual commands for the browser.

We use <center>...</center> for centering text, tables and pictures, etc.

We wouldn't use <naka>...</naka> for Japanese or <medio>...</medio> for Spanish, for example.

Conclusion

Please visit our server at http://160.15.151.35/ and have a look. It will be easier to understand what we have done if you can see the actual thing. We feel that by directly accessing our server, you will have a better idea of the look and feel of the whole project. If you need to know the HTML of any page, go to the Page Source under the View menu (Netscape) and this should download the HTML code of that page in the form of a word processing file.Then you can see how some things were done.

Acknowledgements

We would like to thank the Tottori University College of Medical Care Technology for its kindness in giving us a grant for this project. We also appreciate the input from various staff and students who had a general interest in the project, supported us and made suggestions.

The division of labor in this project was as follows although not keeping to strict guidelines at every point: Mr. Inoue was instrumental in deciding what type of equipment and software were needed, how they should be used and what type of desing we should pursue. Ms. Miyawaki led discussions on design and aesthetics, always keeping the eye of the user in mind. She also was the person through which most decisions about what went onto the server and what should be left out. Ms. Matsuura was in charge of organization of information files referring to all homepages, eg. pictures and information on the faculty, general information on EVERYTHING, and was an indispensible guide in the realm of details for the entire project and main source for the Japanese on the server. Mr. Wiltshire served as typist (HTML, communications and papers) and "software manipulator" for lack of a better term. He also helped to clarify ideas for this paper and polished the English until it was really shiney.

Oops! You missed a spot...or two.

Appendices

Fig.1a   HTML Code for Main page in Japanese

```
<html>
<head>
<title> 鳥取大学医療技術短期大学部のホームページによようこそ </title>
</head>
<meta http-equiv="Content-Type"
content="text/html; charset=x-sjis">
<body bgcolor="#00FFFF">
<body background="wingsinblue.gif">
<br><br>
<center><H1> 鳥取大学医療技術短期大学部の
<br>
ホームページによようこそ </H1>
<br>
<STRONG><A HREF="tandai_e.htm"> 英語のページー ENGLISH IS HERE
```

```
</A>
</STRONG>
<BR><hr><br>
<a href="map.htm"> 案内図へ行って下さい <br><br><IMG
SRC="images/tandaibiglogo.JPG"></a>
<BR><BR><hr><br>
電子メール： <a href="mailto:bmharu9@grape.med.tottori-u.ac.jp">
医療短大部 </a>
</body>
</center>
</html>
```

Fig.1b HTML Code for Main Page in English

```
<html>
<head>
<title>Welcome to the Tottori University College of Medical Care Technology
</title>
</head>
<br>
<BODY BGCOLOR=ccaacc>
<center><H3>Welcome to the</h3>
<br>
<h2>Tottori University</h2>
<br>
<h1>College of Medical Care Technology</Hl>
<BR><hr><br>
<A HREF="Default.html"><img src="images/nihongo.glf"><h3>
JAPANESE IS HERE</h3></A>
<BR><hr><br>
Click on the picture to go to the College Map Guide
<br><br>
<a href="map_e.htm"><IMG SRC="images/tandaibiglogo.JPG"></a>
<BR><BR><hr><br>
questions? e-mail to:<a href="mailto:bmharu9@grape.med.tottoriu.ac.jp">Tottori U Tandai</a>
</center>
</body>
</html>
```

Fig.2   HTML Code for Guide Map Page in English

```html
<html>
<head>
<title>Welcome to the Tottori University College of Medical Care Technology HomeMap
</title>
<br><br>
</head>
<body bgcolor="#FFFF99">
<CENTER><IMG SRC="images/schoolmap_e.gif" USEMAP="#schoolmap_e"
BORDER=0 WIDTH="517" HEIGHT="294">
</CENTER>
<MAPNAME="schoolmap_e">
<AREA SHAPE=rect COORDS="10,120,80,155"HREF="http://www.tottori-
u.ac.jp/tottori_e.html">
<AREA SHAPE=rect COORDS="10,175,65,215"
HREF="http://grape.med.tottori-u.ac.jp">
<AREA SHAPE=rect COORDS="10,235,90,285"HREF="sightseeing_e.htm">
<AREA SHAPE=rect COORDS="115,120,240,225"HREF="tandai_e.htm">
<AREA SHAPE=rect COORDS="110,235,180,295"HREF="former_e.htm">
<AREA SHAPE=rect COORDS="160,15,220,50"HREF="news/news_e.htm">
<AREA SHAPE=rect COORDS="170,60,240,95"
HREF="college_guide/colguide_e.htm">
<AREA SHAPE=rect COORDS="230,20,290,50"
HREF="college_guide/dean_e.htm">
<AREA SHAPE=rect COORDS="270,70,330,105"
HREF="general_ed/gened_e.htm">
<AREA SHAPE=rect COORDS="260,135,340,170"
HREF="departments/departs_e.htm">
<AREA SHAPE=rect COORDS="255,195,320,230"
HREF="students/students_e.htm">
<AREA SHAPE=rect COORDS="195,250,260,285"
HREF="students/studspeech_e.htm">
<AREA SHAPE=rect COORDS="275,245,350,285"
HREF="students/logos_e.htm">
<AREA SHAPE=rect COORDS="350,15,415,50"
HREF="general_ed/genedstaff_e.htm">
<AREA SHAPE=rect COORDS="360,70,420,105"
HREF="general_ed/genedcurric_e.htm">
<AREA SHAPE=rect COORDS="360,125,425,165"
HREF="departments/medcare/medcare_e.htm">
<AREA SHAPE=rect COORDS="350,190,415,230"
HREF="departments/nursing/nursing_e.htm">
<AREA SHAPE=rect COORDS="450,15,505,70"HREF="map.htm">
```

```
<AREA SHAPE=rect COORDS="440,90,510,120"
HREF="departments/medcare/medcurric_e.htm">
<AREA SHAPE=rect COORDS="440,130,515,160"
HREF="departments/medcare/medphoto_e.htm">
<AREA SHAPE=rect COORDS="440,165,505,200"
HREF="'departments/medcare/medstaff_e.htm">
<AREA SHAPE=rect COORDS="445,210,520,245"
HREF="departments/nursing/nursecurric_e.htm">
<AREA SHAPE=rect COORDS="430,255,510,285"
HREF="departments/nursing/nursephoto_e.htm">
<AREA SHAPE=rect COORDS="360,250,425,290"
HREF="departments/nursing/nursestaff_e.htm">
</MAP>
<CENTER><TABLE CELLPADDING=20>
<TR><TD VALIGN=TOP>
</html>
```

Fig.3   HTML Code for Departments Page in English

```
<html>
<center>
<BODY BGCOLOR=ccaacc>
<br><br>
<h2>Welcome to the Tottori University</h2>
<h1>College of Medical Care Technology
<br>
Departments Homepage</h1>
<hr><br>
<a href="nursing/nursing_e.htm">To the Department of Nursing Page</a>
<br><br>
<a href="medcare/medcare_e.htm">To the Department of Medical Care Page</a>
<br><br>
<a href="departs.htm">This page in Japanese</a>
<br><br>
<a href="http://160.15.151.35/map_e.htm"'>Back to the Guide Map</a>
<br><br>
<hr><hr>
</center>
</html>
```

Fig.4   HTML Code for Nursing Staff Page in English

```html
<html>
<head>
<title>Tottori University College of Medical Care Technology Nursing Department</title>
</head>
<center>
<body bgcolor="#FFCCCC">
<br><br>
<h2>Welcome to the Tottori University
<br>
College of Medical Care Technology</h2>
<h1>Department of Nursing Staff Homepage</h1>
<hr>
<br>
<a href="nursing_e.htm">Back to the Nursing Page</a>
<br><br>
<a href="nursestaff.htm">To the Japanese Version<br>of the Nursing Staff Page</a>
<br><br>
<a href="http://160.15.151.35/map_e.htm">Back to the Guide Map</a>
<br><br>
<hr><br>
<h4><blink>Note:</blink>The Japanese names in this list are written with the family name first</h4>
<br>
<a href="staff/tkasagi_e.htm">Kasagi Tsunakiyo</a>
<br><br>
<a href="staff/iyama_e.htm">Iyama Sumiko</a>
<br><br>
<a href="staff/yakura_e.htm">Yakura Noriko</a>
<br><br>
<a href="staff/maeda_e.htm">Maeda Takako</a>
<br><br>
<a href="staff/kato_e.htm">Kato Keiko</a>
<br><br>
<a href="staff/hiramatsu_e.htm">Hiramatsu Kimiko</a>
<br><br>
<a href="staff/miyawaki_e.htm">Miyawaki Mihoko</a>
<br><br>
<a href="staff/fukada_e.htm">Fukada Mika</a>
<br><br>
<a href="staff/sanpei_e.htm"’>Sanpei Mari</a>
<br><br>
<a href="staff/matsuura_e.htm">Matsuura Haruyo</a>
<br><br>
```

```
<a href="staff/minamimae_e.htm">Minamimae Keiko</a>
<br><br>
<a href="staff/takeuchi_e.htm">Takeuchi Yuuko</a>
<br><br>
<a href="staff/wiltshire_e.htm">Timothy Lewis Wiltshire</a>
<br><br>
< a href="staff/hayashi_e.htm">Hayashi Tomomi</a>
<br><br>
<hr><br>
e-mail to:<a href="mailto:bmharu9@grape.med.tottori-u.ac.jp">Tottori U Med Care Nursing</a>
<hr><hr>
</center>
</html>
```

Fig.5a   HTML Code for Individual Staff Member in Japanese

```
<html>
<meta http-equiv="Content-Type"
content="text/html; charset=x-sjis">
<body bgcolor="#ff99cc">
<center>
<table border=3>
<tr><td>
<a href="http://160.15.151.35/departments/nursing/nursestaff.htm">
<img src="miyawaki.jpg"></a>
</td></tr>
</table>
<h4> 上の写真をクリックすると「教官紹介」へ戻ります </h4></center>
<br>
<hr>
<h3>
氏名／役職・・・宮脇美保子(みやわき・みほこ)/ 助教授
<br><br>
専門        ・・・基礎看護学：看護倫理・看護理論
<br>
          現在、<a href="paper.htm"> 患者の権利 </a>、ケアリングをテ
          ーマに研究中です。
<br>
          そして、これらのテーマからの延長として在宅ホスピスに
<br>
          関心をもっているところです。
<br><br>
自己紹介・・・・生きているうちに自分が興味のあることは何でもトライしてみた
<br>
```

　　　　いと思っています。

\

　　　　そのひとつが地球の各地を散歩して、いろんな人との出会いと別

\

　　　　れを経験することです。

\
\

\</h3>

\<hr>\

\<center>

\ プライム ・ ロー ・ ジャパ

ン ・ ホームページ

\

(PRlME LAW JAPAN HOMEPAGE)\

\
\

\</center>

\ 患者の権利法をつくる会

\

\
\

\ 英語へ　My profile page in English\

\
\

\ 案内図へ戻る \

\
\

\<hr>\<hr>

e-mall:\\<address>

yonago97@grape.med.tottori-u.ac.jp\</address>\

\</html>

Fig.5b HTML Code for Individual Staff Page in English

```
<html>
<meta http-equiv="Content-Type"
content="text/html; charset=x-sjis">
<body bgcolor="#FF9999">
<center>
<table border=3>
<td>
<a href="http://160.15.151.35/departments/nursing/nursestaff_e. htm">
<img src="miyawaki.jpg">
</a>
</td>
</table>
<br>
CLICK ON THE PICTURE
<br>
TO GO BACK TO THE
<br>
NURSING PAGE
</center>
<br><br>
<hr>
<h3>Name and Position</h3>
Miyawaki Mihoko/Associate Professor
<h3>Specialization</h3>
Fundamental and Adult Nursing
<h3>Self-Introduction</h3>

While I'm alive I would like to try anything that I
<br>
have a real interest in. One thing is to go to as many
<br>
places as possible on this earth and to meet many
<br>
kinds of people.
<br><br>
<hr><br>
<a href="miyawaki.htm">This page in Japanese</a>
<br><br>
<a href="http://160.15.151.35/map_e.htm">Back to the Guide Map</a>
<br><br>
<hr><hr>
e-mall:<a href="mailto:yonago97 @ grape.med.tottori-u.ac.jp"><address>
```

yonago97@grape.med.tottori-u.ac.jp</address>
</html>

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