9 WEBSITE DEVELOPMENT

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Website address: http://pc26.hep.ucl.ac.uk/3c41/

As part of the project brief, a number of tasks were stated in respect to building and maintaining a website. More specifically: -

- *Understand the basics of web design and moving/editing files under the Linux operating system with a view to maintaining a web -site for the project.*
- *Assemble suitable material that can be used as the basis of a visual presentation (PowerPo int) to schools on the physics of cosmic rays and their detection. This material should also be maintained on a web page.*
- *Maintain a web-based listing of minutes of meetings and actions arising.*

A template of the website was designed by Dr David Waters and Dr Mark Lancaster. This involved a title page and what is now in the Project Brief menu. The web site was expanded from this.

To complete these tasks successfully, it was decided that the web site must: -

1) be designed so that the entire group has easy access to all of the research and data that the group has produced.
2) be designed so that it can be used in the final presentation.
3) be readily accessible and easy to use. This is so it can be used as a source of information for school children

Storing work this way has many advantages. Firstly, there is easy access to all of the work completed by the group anytime and anywhere, providing that there is an Internet connection. Once on the site, all of the work is organised and hence easy to navigate to find the required information.

Secondly, the site is easily updated. This has the advantage that all of the group can be updated without the need for meetings. This was especially important for our group as the only opportunity we all had to meet was the scheduled group meetings. With so many different group members doing different things, to have the research instantly accessible by everyone had obvious advantages.

Another advantage is that work can be retrieved from the site, rather than having to find the correct person who has the required information and borrowing the original copy. This means that the work can read/analysed by more than one group member at any time. Also, unlike disks or paper, work cannot be lost once on the site.

The last important advantage is that work cannot be altered without the 'web master' knowing. This means that no one can change things that were not meant to be changed.

The website had to look good and still be easy to use. To achieve this, the title page uses a java applet which gives a 'funky' menu. The applet took up the whole screen

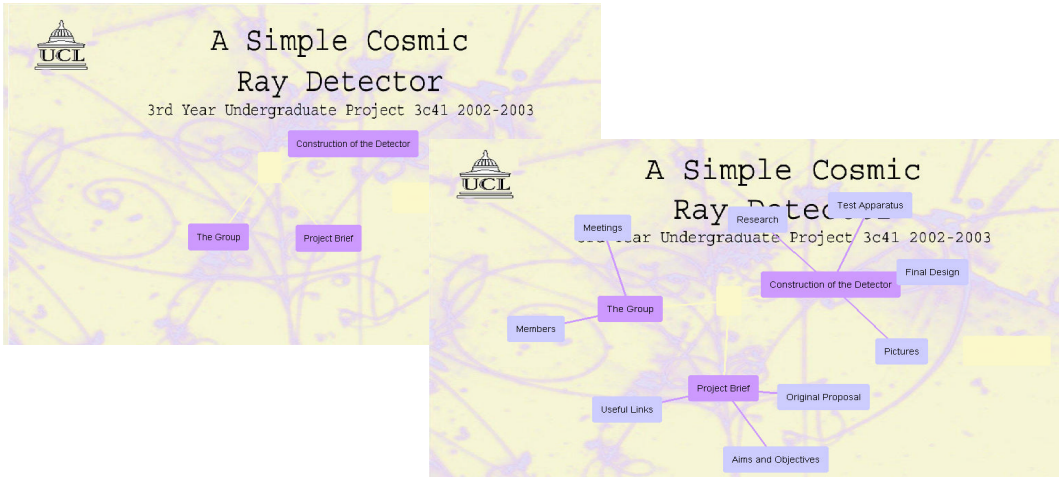
and the background had to be designed on PhotoShop. Successive pages use flashing bullet points. The background is consistent throughout and is a bright detection chamber picture.

Unfortunately the re was no access to a program which could have changed word documents into .pdf, so the word documents are saved as .htm files. This works fine, but unfortunately some of the pictures in the word documents were incorrectly formatted.

The work was all uploaded onto the site using SSH secure shell, and connecting to ftp socrates.ucl.ac.uk. Uploading work in this way allowed easy access to pc26, the website server, from any computer.

Index page

This page uses an applet, which firstly displays the three main section menus.



On clicking on these menus more options pop from them. These options are all links to the corresponding pages.

The Group

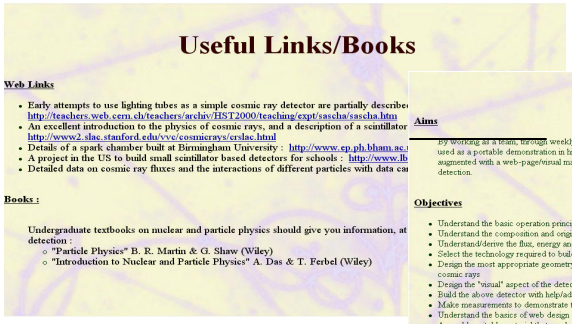
These two pages contain contact details of the group, and group meetings. The group members page contains the names of all group members and supervisors, and an easy

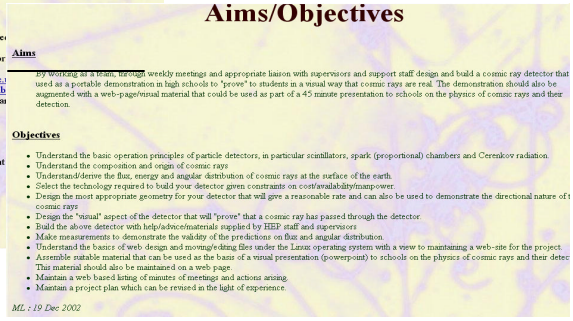
e-mail link.

The group meetings page details the time of group meetings and the minutes from each meeting. The minutes are detailed in word html files. This allowed easy copying of the files for the final report.

Project Brief

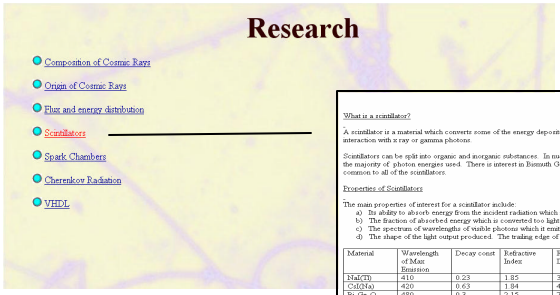
These pages detail the original material that was provided for the project.

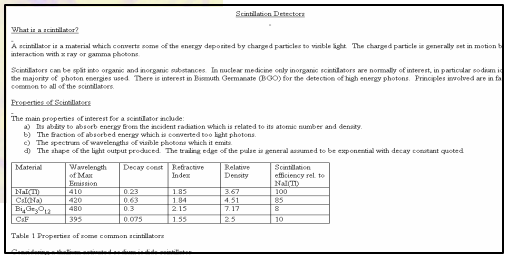




Construction of the Detector

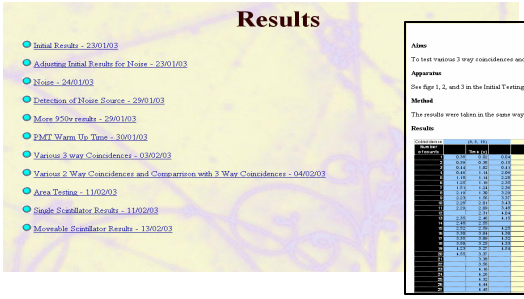
This section details the construction of the detector, to the building of the final design. On the research page, each bullet point corresponds to a link to the initial research carried out for the project. For example below, a section of the scintillator research

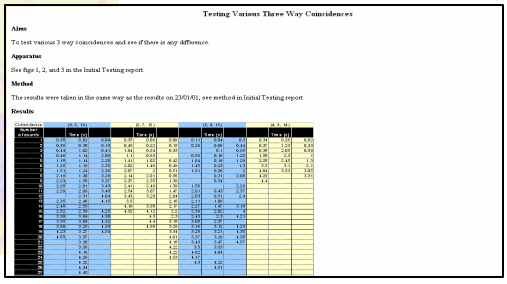




can be seen. As in with all documents, they are in word format for easy copying to any file.

Results

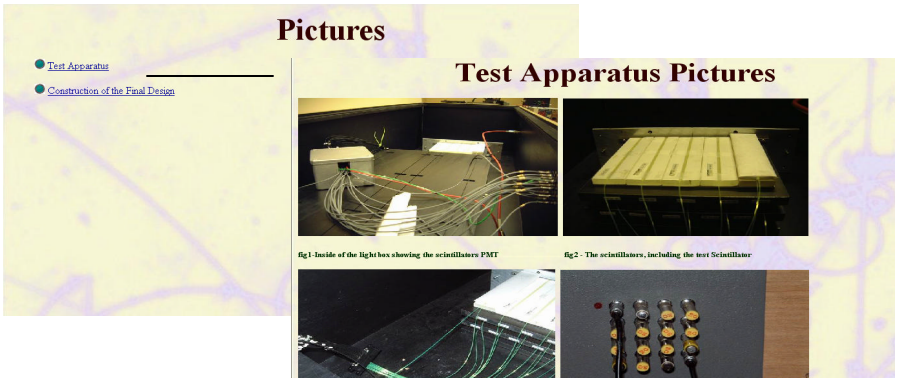




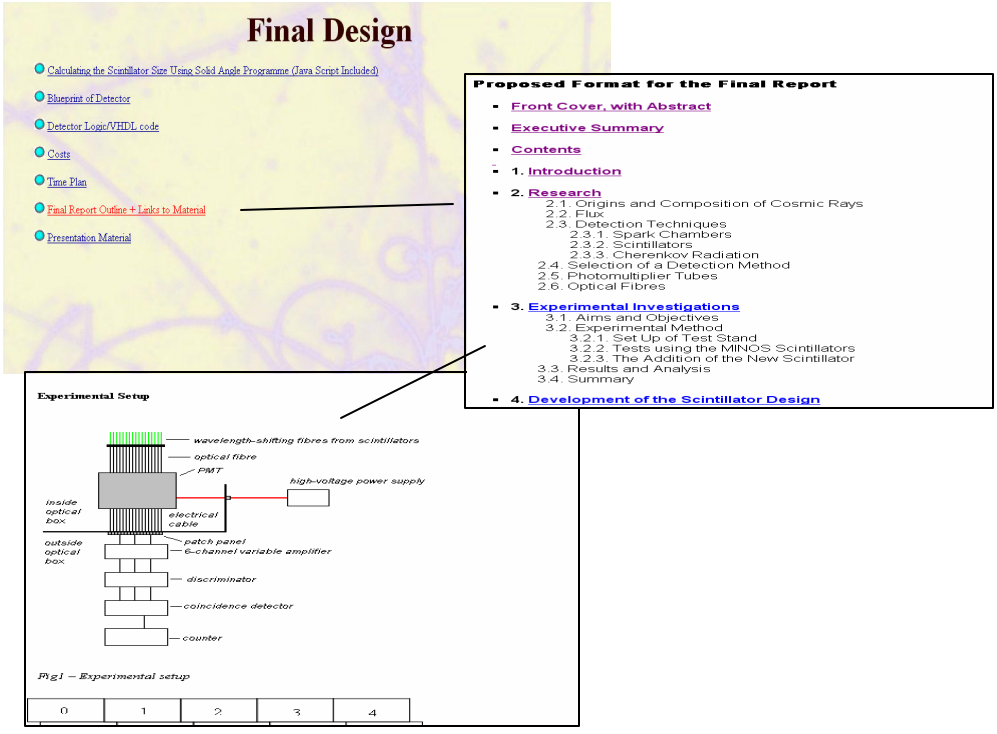
This section details the research that was carried out by the group. Again each section represents a link to another document. An example one of the documents is shown.

Pictures

The pictures page is split into two section, and will be extended to three when the detector is complete. One section shows pictures of the test appartus, the other shows pictures of the building of the detector. When the detector is constructed a further section will be added showing the detector in its full glory.



The final design section details the work that was needed to build the detector, for example the VHDL code and the calculation of the scintillator panel size. This section also details the costs, time plan and proposed format for the report. The proposed format of the report contains links to all the material that has been completed for the



report. For example above the experimental investigations section is shown.

For website structure, see Appendix XIII