

**РАЗДЕЛ IV. СОВРЕМЕННЫЕ ИНФОРМАЦИОННЫЕ ТЕХНОЛОГИИ
В НАУЧНЫХ И ПРИКЛАДНЫХ ИССЛЕДОВАНИЯХ**

**ORGANIZATION OF INTERACTIVITY OF A WEB-SITE BY MEANS
OF THE PROGRAMMING LANGUAGE PERL**

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The programming language Perl was created in 1986 as a tool for the administration and configuration of system resources in a network consisting of Unix-computers. Perl is deciphered as follows: "Practical Extraction and Reporting Language". Gradually Perl developed and became a language independent from the operational system.

The main advantage of the given language is that it is an interpretive language, it means that the programs in this language do not require compilation, the presence of the interpreter is necessary only. And therefore there is a number of advantages, for example, such as independence of a certain type of the system.

While developing web-sites the language Perl was applied to the spelling of CGI-scripts (CGI - Common Gateway Interface). CGI- are the applications located and carried out on the web-server.

Without the usage of the CGI-applications it is impossible to make a high-grade interactive site, which will cooperate with the user. In connection with specificity of the spelling of the CGI-application in various programming languages there can arise problem situations connected with the safety of the server. Therefore the safety of CGI is an integral part of the safety of the server.

For the organization of the site interactivity a number of the CGI-applications, were developed, such as:

- Conference;
- News manager;
- The counter of visiting;
- System of the removed administration.

To provide the safety of the site and the server as a whole in all CGI-

applications the functions of encryption are used which will not allow anybody to receive the password of the registered user or any information of him, if only the user himself has not published his data.

The conference is the section for the communication of the visitors of the site among themselves. To receive the access to the conference the user should pass registration, which includes filling in the registration form and sending of the data to the server. Further on the data sent to the server, are considered by the manager of the conference, and he adopts the final decision about the registration of the user.

After the registration the conference becomes accessible to the user. The access to the given section is carried out after granting the visitor's name and password, which he specified at filling in the registration form.

After having entered the name and the password, the user gets into the conference, where the following is accessible to him: reading of the personal messages, reading of the common messages, sending of the messages, removal of the old messages.

- The personal messages are accessible only to the given user and another user can not read them, it enables the confidential communication of a certain group of users.
- The common messages are the messages accessible for reading to all registered users, and can be deleted by the manager only.
- The sending of the messages is possible both personally to a separate user, and to all users simultaneously.
- The Removal of the messages; the user can delete only personal messages.

The manager of news, the CGI-application, allows making administration of the unit of news. For receiving the access to the manager of news as authentication (on granting the name and the password) is necessary. The data on the users, who are authorized to manage the news section are taken from the base of the administration system users, which means, that the users of the system of the site removed administration can be the users of the manager of news.

The manager of news gives the following opportunities:

- Add News (addition of news);
- Edit News (editing any already existing news);
- Del News (removal of unnecessary news);
- News Archive (transferring of out-of-date news to archive).

The counter of visiting is CGI-application, that is started at each, loading of pages, on which it is connected. The given application keeps account the visits of site pages, and also displays the total of visits on some pages.

The system of the removed administration includes various functions necessary for the maintenance of serviceability of a web-site.

Several users can be registered in the system, and for each of them the access rights can be adjusted, that is, the differentiation of access is supported. It means that there exists the restriction on the performance of various functions by the users.

In the given CGI-application there is a splitting into sections:

- Conferences administration (administration of conferences);
- File manager (shell for files management);
- UpLoad File (section for loading files from the removed computers through Internet);
- Messages (section for the exchange of the messages between the users registered in system of administration);
- Administration (section the change of personal adjustments of each user);
- Super Admin (the section accessible only to the main manager, with the help of this unit the control and management of the system of administration is carried out).

Through the given system of administration it is possible to provide for the complete removed management of all the contents of the web-site: the creation of new HTML-pages, CGI-applications, the loading of necessary files on the server and their publication in a network.

In the system of administration the methods of encryption for the organization of confidentiality of the users passwords are used.

In difference with the conference, where for the registration the user fills in the registration form, in the system of the removed administration only the main manager personally registers new users.