Page Management Analysis of EIO Framework Application System Based on Web Services

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Abstract: As an important part of software system, user interface plays a unique role in the whole life cycle of software. The core of software quality control lies in the effective, scalable and highly adaptable management of user interface. This paper proposes and implements a development framework based on client/server model by studying the implementation method of EIO pattern and the development technology of existing framework based on Web services. At the same time, the framework is applied in specific projects. The framework provides a complete solution for Web system development by providing the base module, the specific message communication format, and the development interface for the client and server. The EIO system supports concurrent, multi-threaded user interface mechanisms and provides a way to build a dynamic user interface. It fully considers the various needs of users, and integrates the interface customization of the management information system, the rights management and the definition process of the work flow, making the interface of the software more simple and friendly, and the operation is more convenient. Practice has proved that this interface design is very successful.

1. Introduction

Interfaces are more called interfaces, or "joints". They are the links between systems that are not only different from each other, but also related to each other. At present, the degree of friendliness of a software interface reflects the level of software design. A friendly man-machine interface can make people easier and more convenient to operate [1]. The traditional human-computer interaction technology based on character response gradually gives way to the graphical and intelligent user interface form with visual technology as the core, and integrates all media forms into one [2]. In a sense, user interface is the whole software system for users, and the importance of user interface for software system is self-evident. As the size of software systems continues to expand, the time and cost of developing large software systems has multiplied [3]. Currently, there are many managed software on the Chinese market. But for many SMEs, these management software did not meet their business development needs, nor did they improve business management efficiency and performance. The interface is cross-linked with operations, so that small changes in requirements can lead to redesign of the interface and re-release of the system.

For the improvement of the existing problems in the framework, the EIO development model proposes a new solution. EIO is a new software development model for data extraction and injection. This development model has important guiding significance for the assignment of functional responsibilities and client multi-end access in the client/server model development architecture [4]. In terms of the operability of the application software and the comfort of the software operation, the application software is put forward higher requirements. In addition to expecting the software used to have powerful functions, it is expected that the application software can provide them with an easy, A pleasant, well-featured operating environment [5]. Coordination of interfaces among subsystems, smooth flow of materials, energy and information between subsystems, and good handling of the relationship between the system and the outside, ensuring the interface between the systems, can

make the whole construction project organization and management system always in an efficient state [6]. There are a lot of menus or options in the user interface that are not useful to him. Traditional multi-document graphical interfaces allow multiple windows to be displayed, and layered menus make it difficult to find. This paper presents a user-oriented interface design idea for MIS.

2. Methodology

The interface definition of the system is combined with system authority and work flow management, and can be integrated into the system management module. Semantic transformation network, formal description method and event description method. Event description method is widely used at present because of its strong expressive ability, which can support multi-line control structure. It is necessary to design the user interface of the system by means of auxiliary tools, which can provide designers with visual and standardized means to realize the mapping from user needs to the actual interface, and quickly generate the implementation code of the user interface [7]. In the EIO framework, extraction is actually an interaction model, which takes the interactive components and data resources in the interactive view as interactive objects. The logic of the system application is mainly realized by data extraction and injection. After the browser makes a request to the WEB server, the page is downloaded and displayed. The advantage of the WEB application is that the page itself does not need to be compiled and connected, the system interface is simple and convenient to collect, and the development cost is controlled. These development frameworks have specifically explored the client/server model development architecture. However, these frameworks are often perfected only for one aspect of the architecture, and lack a holistic solution for both client and server. Therefore, it is necessary to provide developers with a means of visualizing the user interface through specialized techniques.

After the server stores media items, the storage manager notifies the listener through events that new content is available. There are two types of events: one represents the success of storage (storage event), and the other represents the failure of storage (request failure event). As shown in Figure 1 below.

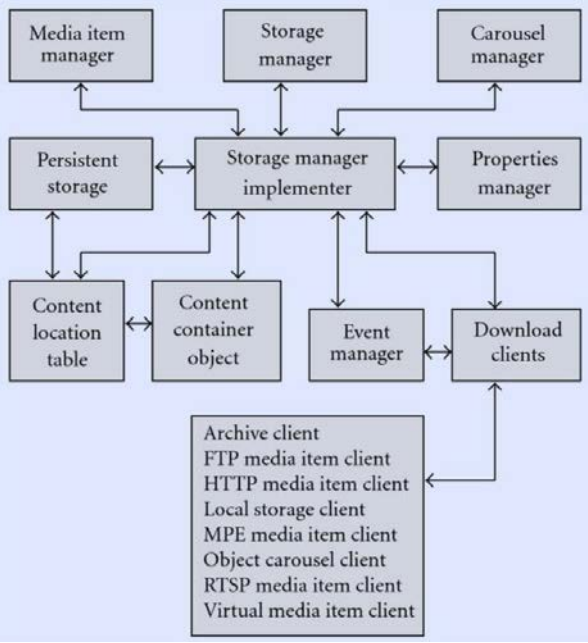

Figure 1. Distributed storage manager system components

For each stage of the construction process, it has its own perfect quality assurance system and its own strict standards and norms. However, the stages need to be connected to each other, and there must be a mutual flow of technical information. The business link is associated with the window of the system, that is, a window only processes one business link. The principle of business link definition is: one link is an actual business link, and the complex one can be split [8]. Designers

determine the style and mode of the whole interaction system by modeling the interaction model in the user application domain. The data source is the interface pattern base and the modeling knowledge base. These two tools have not been fully implemented yet, but are defined directly by designers according to the format of the database. Once the user interface needs to be modified, the impact on the functional implementation code is small, and the problem found in the test can be quickly fed back. EIO is different from the traditional MVC development mode. It does not divide along the relationship among view, model and controller in MVC. It is essentially a re-decoupling division of each module in MVC mode.

This is a new context-based middleware that uses a group approach to support security-related decisions. Context-based solutions are more suitable for MANET. In addition, the grouping approach facilitates the organization of nodes in context and security-related decisions. Figure 2 illustrates how an application can use middleware to perform reliable communication on unreliable physical channels.

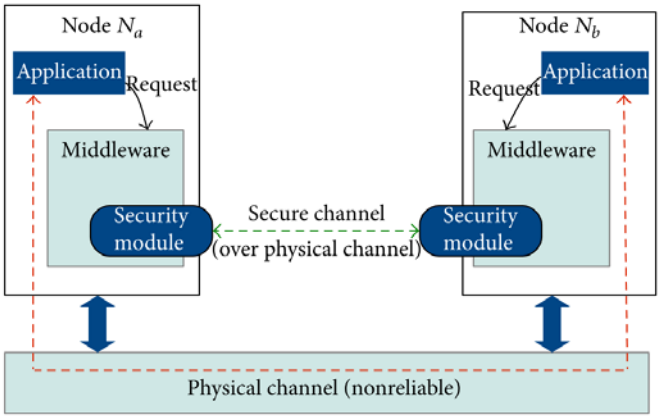

Figure 2. Reliable communication using secure middleware

The storage management of the interface refers to the organizational management mode of interface definition information and interface morphology. Most traditional EIOs are only responsible for outputting interface morphology according to the developer's definition information. The organization and management of the interface morphology in the final software system is implemented by the developer. In this framework, the server is mainly responsible for receiving and parsing the request from the client, and calling the corresponding business logic processing function to process the request, and finally wrapping the processing result into a response message and transmitting it to the client. The overall design idea of the system is to describe the elements of the interface in the form of components, organize and provide a visual generation environment, so that developers can quickly design the interface. However, the real system interface management should rely more on scientific and rigorous management procedures to objectively analyze and control each link in many aspects and parameters. The default attribute of a link is that it must be executed. If it is not necessary, it can be defined as non-essential, and at least one must be executed in a business.

3. Result Analysis and Discussion

In the past, project managers generally did not pay enough attention to the research of technology information flow model. Practice has proved that technology information flow model is not a simple "form", but an important part of management methods, which has important practical significance. After the operator logs in, the system queries the authorization information and interface information of the current position according to the position of the operator, and generates the operation interface of the system. According to the model and interactive historical pipeline account, the inference engine can calculate the user's corresponding level, trigger the switch, change the interface's interaction mode, help mode and so on. The domain model describes the division of application task function and the corresponding system dialogue and performance. The interface description can be

performed through a visual interface editor, and the interface design tool generates an XML file describing the interface according to the user's design. Unlike traditional MVC controllers, it is a service and does not actively control other components. Independent of the specific application, universal with all applications. However, this statically separated organizational management model limits the dynamic definition of EIO, and does not bring any benefit to improve the ability of software systems to track changes in demand.

Message transceiver serves as the entrance of message interaction between server and client. It is mainly responsible for sending and receiving messages from server. It consists of message listening layer, message filtering layer and business processing layer from bottom to top. Component attributes and interface display are the external description of components. They describe the appearance of the interface in a visual form. They mainly deal with the macro layout of the interface and display the user interface. "Information Center" provides a common information interface for project participants, which makes the flow of technical information centralized. That is, the flow of technical information within the project department or between project participants must be operated through the "information center". When the operator clicks on the icon representing a certain service, the program automatically displays the business link and process line authorized by the service, and automatically optimizes the size and position of each icon. No programming procedures are required. It has the following features: All actions of the editor are given in WYSIWYG. Get system messages based on user input. The output is responsible for coordinating with the dialogue process management and feeding back the results of the execution to the user. EIO's development model is based on the idea of data-oriented extraction and injection of interactive view and resource view. The development process of the system is realized as the extraction and injection behavior of interaction view and resource view.

There are several problems in the loading of semantic information, although there is no essential difference between local semantics and algorithmic semantics, only the former is directly implemented by the window platform function, and the latter needs to call a special user function. The main function of the message listening layer is to listen to the network read and write and connection operations, to read the network layer data into the memory buffer, and then trigger various network events, such as connection creation, connection activation, message read events and write events. Wait. Then assign some component attribute information in the cache to the created component, check whether the component node has child nodes, and if there is no child node, obtain the overall display of the interface in the form. If there is a child node, in its parent component Create this component. The management mode adapted to the laws and procedures of project construction is gradually becoming mature and perfect, which is the basis and guarantee of project management, and constitutes the macro environment of system interface management. Then the validity and visibility of each control in the window are set according to the permission, and the validity and visibility of pop-up menu in the window are set. In the case of complex human-computer dialogue, EIO is needed to define the process of human-computer dialogue. The definition of the process of dialogue is often related to a group of graphic user elements. At this time, the definition of the process of dialogue can be formed into a single file to make the logical structure clearer.

4. Summary

The maturity of user interface technology is directly restricted by the maturity of user interface management system. The traditional interface management model is very similar to the old single-tier computing system. The XML file is only the description of the interface, and the expression of the interface is the responsibility of the run time manager, so the whole interface style of the software system is consistent. In the aspect of system implementation, this paper uses EIO framework as server-side implementation. On the basis of EIO framework, this paper designs and implements the software structure hierarchically, which makes the system have good business scalability. According to the messaging feature of the framework, the format of the message

communication between the client and the server and the forwarding routing table are defined. At the same time, according to the overall design of the framework, the basic modules of the client are designed, mainly including the design of communication modules, message parsers and other auxiliary modules. Its implementation provides developers with a visual means to develop the user interface, so that artists or designers who are not familiar with the interface language can also modify and improve the interface, reducing their communication time with developers, thereby improving development efficiency.

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