Application of ASP Technology to Realize the Online Administrative License of the earthquake in Hunan Province

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Abstract. Realizing the online handling of administrative approval of earthquakes is an important measure to improve work efficiency and facilitate people's convenience. Based on the analysis of the characteristics and processes of the administrative licensing in the earthquake industry, this paper proposes an online processing model based on ASP technology and an online processing system based on B/S architecture. This paper presents the design and implementation methods. The application of the system shows that the system is simple in design and full in function, and can be used on mobile platforms such as computers and mobile phones, and has good practicability and forward-lookingness.

1. Introduction
Administrative licensing is an important part of the open government affairs. It is an important way for the general public to understand the functions of the government by publishing approval and handling procedures on the Web. Hunan Province, the earthquake permit system for online work started late, in the government one hundred things online to do online, building a service-oriented government call, but also the urgent need to establish an online system.

Based on the construction of online processing model of seismic administrative license in Hunan Province, this paper analyzes the characteristics and processes of administrative licensing of seismic industry and proposes an online processing system based on ASP technology to build B/S architecture [2]. Let the general public access this system through the web on mobile platforms such as computers and mobile phones, and then realize the online acceptance of administrative licensing matters. The staff members approve the licensing matters through the seismic industry network, which greatly saves the approval time and facilitates the general public.

2. Function overall design
According to the traditional mode, the administrative license of the earthquake department must obtain the form from the seismological bureau by the bidder in advance, send it to the Seismological Bureau after completing and preparing all the information, and the staff members will receive the materials and then go through the follow-up examination and approval formalities. According to this process design of the system online processing model (flow chart), shown in Figure 1. According to the model (flow chart), the use of ASP to develop intermediate applications to connect the front-end and background data layer for data exchange and business processing. System design to complete the following functions: (1) online information release, so that the public informed about the approval
situation; (2) online reporting and data upload, according to the seismic administrative licensing requirements of the list of listed items listed online fill out and submit; (3) Establish a public database to facilitate staff inquiry and review. Therefore, design system architecture diagram, shown in Figure 2.

Fig. 1 Online management model (flow chart)  Fig.2 System functional architecture diagram

3. Functional design and implementation

3.1. Data Acquisition (Administrative License)
Data acquisition is the first step online filing, but also the key step. Select different administrative licensing projects to submit the information to be different, through the analysis to find their common points, and proposed the following collection methods:

(1) online filing of returns: the past paper form is converted to a spreadsheet, which requires the system to provide a platform to fill in information, and then fill in the information recorded in the database, at the same time fill in the information generated by the word document, easy to print.

(2) Uploading of original data: converting some of the original documents with the stamp into a picture format requires the system to provide a data uploading platform, meanwhile intercepts the name of the uploaded data and records it in the database in one-to-one correspondence with the application form to the staff.

3.2. Data storage (database design)
Analysis of the various functional items, the system requires the use of a database to store multiple data sheets such as "online filing declaration", "original data list", "approval result information", "staff authentication" and so on. We define the database name thl.mdb, Table 1 lists the "online reporting form" structure [3].

| Field name | type of data | Field length | Field description             |
|------------|--------------|--------------|-------------------------------|
| xmmc       | text         | 30           | Save the declared project name|
| gcgk       | text         | 50           | Storage construction project overview|
| jsdw       | text         | 30           | Storage construction unit    |
| ...        | ...          | ...          | ...                           |

Description: Due to the various contents of the declaration, the database field name must correspond with the declaration, so in this.
3.3. The realization of functional modules

3.3.1. Fill in the form online. Realization of online reporting of information is the core of the system, the system must provide a platform to fill in information, and access to the information recorded in the database and generates the word document. (1) Corresponding to the zxsb data sheet designed in Table 1 in the text, we design multiple text boxes respectively on the web page for users to fill in the data, as shown in Figure 3. Take the “project name” single line text box as an example, the HTML code is: `<input name = "xmmc" type = "text">` (2) By ASP code `<% xmmc1 = request.Form("xmmc") %>`, Collect the contents of the "Project Name" single-line text box and save it in the xmmc1 variable. Then connect to the database, use the SQL statement `<% insert into zxsb (xmmc) values ("& xmmc &")%>` Write it to the zxzb datasheet xmmc field name. (3) After all the data has been filled, the word document is generated, as shown in figure 4. In the realization, the first use of the word to prepare a template file, the contents of the file corresponding to the online declaration of the table, at the same time for each column given a name, such as "project name" column, can be named "${ xmmc1}" Convenient in the program transferred to fill in the contents of the user instead of the column.

![Fig. 3 The text box](image1)

![Fig. 4 Automatically generated word document](image2)

3.3.2. Original data upload. In order to solve the complexity of the original data scanned by the declarant, the photographing function of the mobile phone can be used to directly photograph the
upload, which is also the condition that the system can better act on a mobile platform such as computers and mobile phones. Use the `<input type = "file">` design file selection box in the web page for the user to select the file to upload. The database identifies the file uploaded this time by the ID number and associates with the `zxsb` data table.

3.3.3. Database read and write. When you visit each web page, there will be multiple reading and writing database. Therefore, in order to avoid writing a very long program segment every time the program is connected to the database and to enhance the readability of the program, we store these statements for connecting to the database in a fixed configuration file (the file name is: `conn.asp`). When other pages need to access the database, just include `<! - #include file = "conn.asp" ->` in the first line of the page. `conn.asp` source code as follows [4]:

```jsp
<% StrSQL="DBQ="+server.mappath("thl.mdb")+"; DRIVER={Microsoft Access Driver (*.mdb)};" ' Define the database driver, and connected the name of the database
    set conn=server.createobject("ADODB.CONNECTION") ' Create a database connection object
    conn.open StrSQL %>
```

4. System test

Hunan Province Seismological Bureau portal site as the theme, the site opened "administrative permission" column, at the same time link to the system address, dedicated to online for various administrative licensing projects. To maintain a unified style with the portal, the system home page with orange-based color, CSS style [5] to define the functional bar partition, and lists out the existing administrative license Hunan Earthquake Administration project, and online process. Home page "latest information" column and backstage information release page linkage, realize backstage upload data, front desk display content. Also facilitate the staff in this section release approval results. As shown in figure 5.

![Fig.5 Web site home page and background information page](image)

5. Conclusion

The online platform for realizing administrative approval of earthquakes has broken the limitation of time and space, which has effectively improved the efficiency of the staff of earthquake systems and provided the public with a simple, quick and convenient service platform. Based on the core technology of ASP, this set of platform gives a relatively complete system design scheme according to the characteristics of seismic administrative licensing, which has been applied to the Seismological Bureau of Hunan Province at present. Due to the state secrets, the system cannot be temporarily passed the electronic seal.
Acknowledgments
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