IDIAP COMMUNICATION

IDIAP Demonstration Management

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1. INTRODUCTION

Management of demonstrations developed by different groups is one of the responsibilities of the IDIAP system group. As IDIAP's growing, more and more demonstrations are available to present projects achievement and research results. The demos are often associated with programs and multiple data sources, which are not structural data. Therefore, the demo management becomes a tedious data-management task. To make this management work more efficient and dynamic, we developed an automatic Web-based demonstration management system. By using this system, you can easily search, update and manage the demos through a Web-based interface.

2. WHAT THE DEMONSTRATION MANAGEMENT DO.

The current version consists of the following functions:

- Present demos on IDIAP demonstration web page.
- Submit a new demo.
- Administrate demos and update related documents.

2.1 Present demos

2.1.1 Outlook of the demo page

Figure 1 IDIAP Demonstrations page

The IDIAP demonstrations page lists all the available demos at IDIAP *(See Figure 1)*. For each demo, it displays demo's name, snapshot, and brief description on the demonstration web page. Optionally, you can get more information. More information is often related with a project that this demo contributes to, or further descriptions in detail. Moreover, some demos can be executed on-line are specially labeled, people can launch them through the web. In addition, we list each demo by a random order, so that the user can see a different demos list every time.

2.1.2 Two ways of sorting the demos

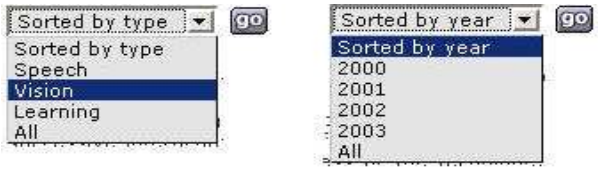

Figure 2 Sorting IDIAP demonstrations

The above figure shows two dynamical menus for sorting the demos. One is to sort by type: here we currently classify three types: *Speech, Vision and Learning*. Another one is to sort by year: we start from 2000. If in future there is a new demo created in 2004 or is belong to a new type, the sorting menus are able to dynamically increase new items. Generally all demos are listed by default. We'll describe the implementation afterwards.

2.2 Submit a new demo

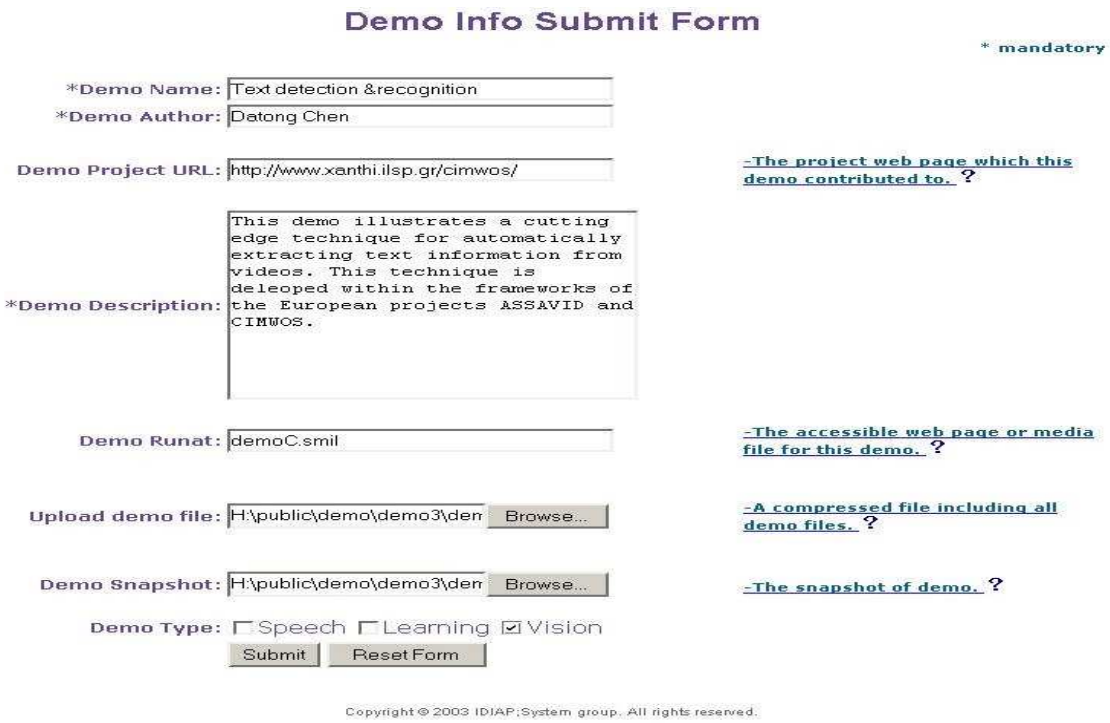

Figure 3 submit a new demo

As we mentioned in the introduction, one of the main functions for the demonstration management is automatically accepting a new demo. The above figure is an internal IDIAP web page which guides the user how to fill the form.

2.2.1 Fill “Demo info Submit Form”

To submit a new demo, the user needs to or optionally needs to provide the following information. If there is ‘*’ in front of the item, it is obliged to fill it.

- Demo Name
- Demo Author
- Demo Project URL
- Demo Description
- Demo Runat.
- Upload demo files
- Demo Snapshot
- Demo Type

Among all above items, we might need give the following explanations.

2.2.1.1 Demo Project URL

The accessible web page file or other media file for your demo, could be *.html, *.smil, *.avi, *.mpg etc. For example, the accessible file of your demo is "demo.html" or "demo.smil". We will automatically create a URL “www.idiap.ch/demo/demo**/demo.html” or “www.idiap.ch/demo/demo**/demo.smil”. It's convenient for people to browser your demo.

2.2.1.2 Upload demo files

If an user have more than one demo files or subdirectories, he must compress all the demo files firstly (We accept the compressed file in format of ".zip", ".gz", ".tar", ".tgz", ".Z", ".tar.gz" and ".tar.Z"). Use **"Browse..."** to select the compressed file. Then this file will be uncompressed automatically in the default directory after submitting. The user will see the list of all the files in the next page. To make our work automatic, please compress files instead of one Directory. If you forget uploading a file, you can upload again, but you can not delete the files you have uploaded.

2.2.1.3 Demo Snapshot

A logo image file for your demo, could be in format of *.jpg, *.jpeg, *.gif etc. The user can use "print Screen" to generate the snapshot file. Please set the size of image around as 240*200. By default, we use IDIAP logo file. However, to the artistic reason, we recommend you to provide a logo for your demo.

2.2.1.4 Demo Type

At present, we classify 3 types: *Speech, Vision and Learning*. However, the user can choose more than one options.

After filling the form, click the "*submit*" button to go to the next web page.

2.2.2 Confirm or modify a new demo's submitting

The user will be asked to confirm his submitting, or modify his previous input. On the bottom of this page, the user can see how the new demo will published on IDIAP web site. After the user's confirmation, a email will be sent to demo Master automatically, thus inform a new demo's arrival. Meanwhile, the entire demo's info will be added into database. We will describe the structure and the design of database tables afterwards.

Figure 4 Demo submitting confirm page

2.2.3 The end page for new demo's submitting

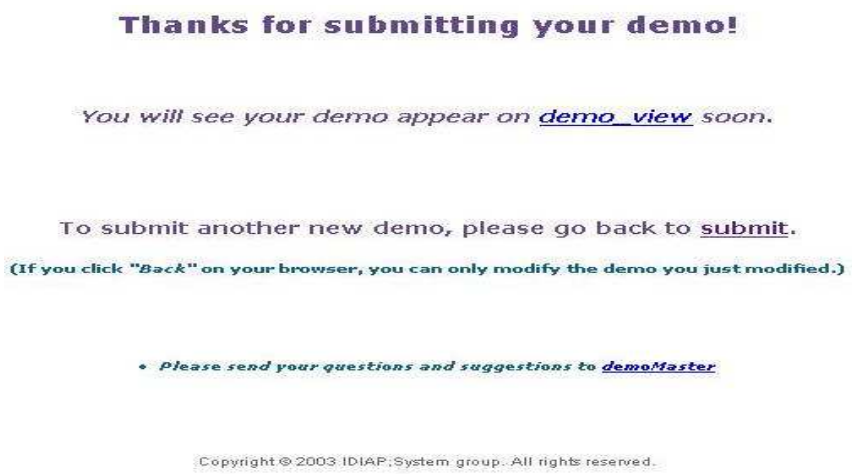

Figure 5 Demo submitting end page

While you see above page, all the information of the new demo has been input into database, and a email has been sent to demo Master automatically, which could be as following:

"**Frank Formaz** has just sent a new demo **--Speech recognition(InfoVox)--** at **-demo17-.**"

In addition, if the user has more comments or questions, he can write a email by clicking the text ***"demo Master"***.

2.3 Administration

The following figure is an internal IDIAP web page especially for the demo Master. Only demo Master or system administrator is able to access this page.
The page displays all the demos' id number, name, and created time. In front of each demo id number, there is a check-box. Only if it is selected, the according demo will be displayed on IDIAP Demonstration page.
Of particular usage of this administration page, is for an author to update his demo. He might like to revise something for his demo, or improves a new function. In this case, he just needs to submit his new version demo, and send a email to demo Master that his submitting is a new version of a previous demo. The demo Master will deselect his previous demo, and select his new version demo. Then IDIAP demonstration web page can update this replacement immediately.

Figure 6 IDIAP demos administration page

3. ORGANIZATION FOR THE DEMOS INFO IN DB

3.1 How the demo info compose the outlook of a demo

The information displayed on IDIAP demonstrations web page is dynamically retrieved from the table in database. *Figure 7* basically shows how the information in DB makes up a demo's outlook on the web page.

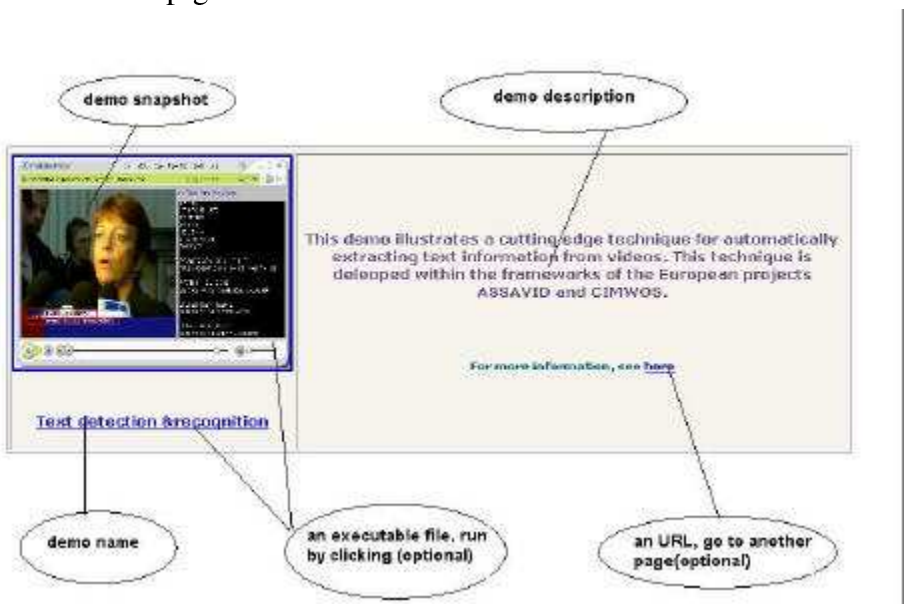

Figure 7 the structure for the demo information

3.2 The Structure of demo info

Hereafter we list the structure of the tables in DB. *Table 1* is the definition of the demo info. Meanwhile, we give the values of one record according to the above example.

Field	Value	
demo_id	*15*	*Primary key & index*
demo_name	*Text Detection & Recognition*	
demo_path	*demo15*	
demo_logo	*demo15.jpg*	
demo_desc	*This demo illustrates a cutting edge technique for automatically extracting text information from videos. This technique is developed within the frameworks of the European projects ASSAVID and CIMWOS.*	
demo_url	*demoC.smil*	
demo_note	*http://www.idiap.ch/index.php?content=VOCR&IncFile=PageType&UrlTemplateType=1&cPathContenu=pages/contenuTxt/Projects/*	
demo_pub	*Y*	
demo_date	*May 5, 2003, 12:26 pm*	
Demo_author	*Datong Chen*	

Table1. demo info

Accordingly, between the values in DB and outlook on IDIAP demonstration web page, we can easily get a mapping as following:

- *demo_name*—demo name
- *demo_logo*—demo snapshot
- *demo_desc*—demo description
- *demo_url*—an executable file, run by clicking snapshot image or name(optional)
- *demo_note*—an URL, go to the project web page(optional)

Among other fields, *"demo_pub"* is a key switch which decides whether this demo is shown on IDIAP demonstration web page or not. By default, while a user submit a new demo, the value of "*demo_pub*" is *'N'*, the demo Master can active the new demo from the administration page, after he get the automatic email informing.

3.3 The relation between ***demo type*** and ***demo info*** tables

Field	Value	
type_id	*17*	*Primary key*
demo_id	*15*	*index*
type_name	*Vision*	

Table2. demo type

Table 2 is the definition of ***demo type***. This table is specially used for dynamically sorting demos by type. Since a demo can belong to one, two, even three types, we build relation between ***demo info*** and ***demo type*** table, and use *"demo_id"* as *index*. The following sketch shows how the relation functions for the demo.

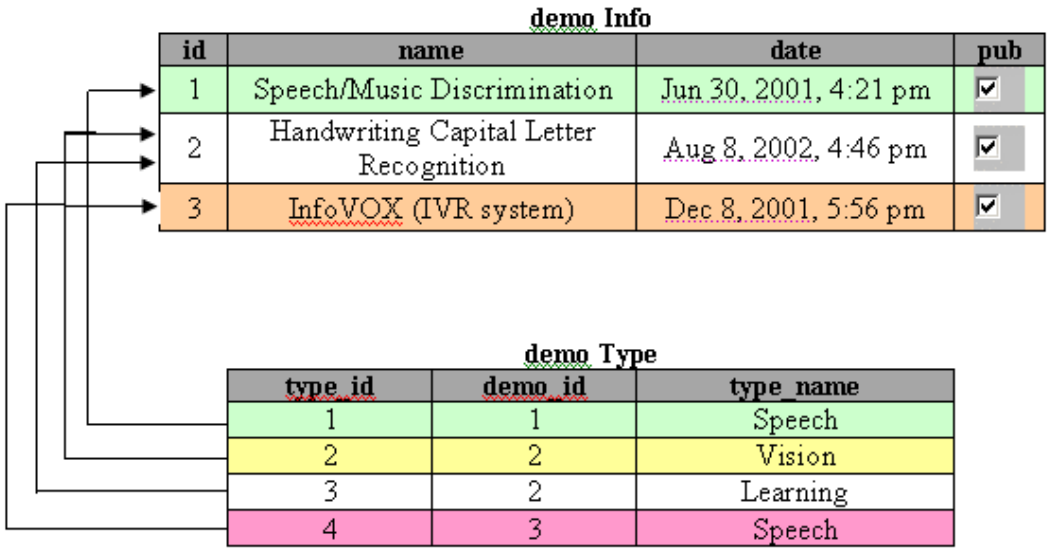

Figure 8 the sketch of the relation between talbes

3.4 The flowchart of submitting a new demo

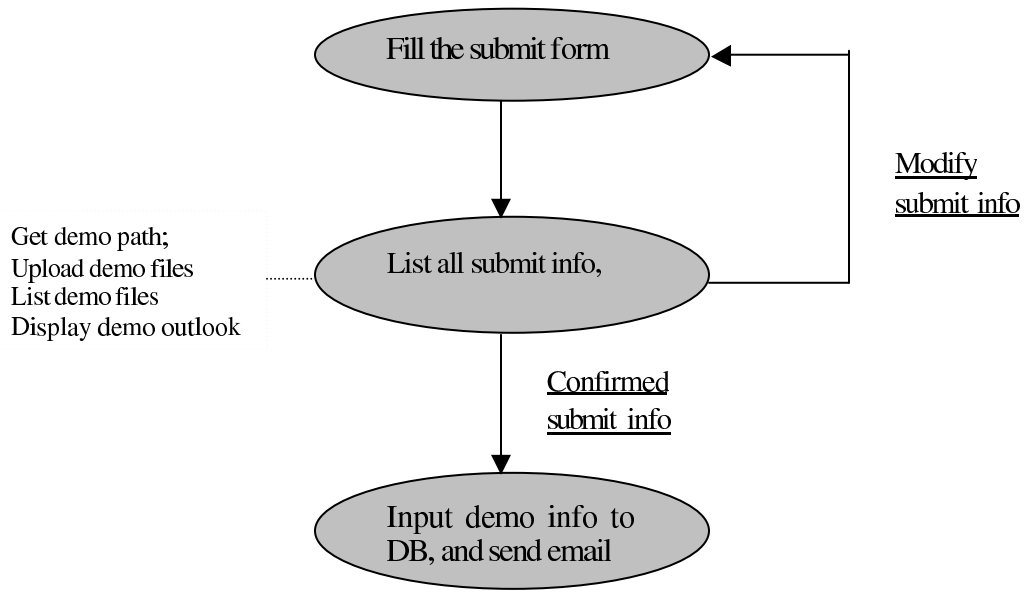

Figure 9 the flowchart of submitting a new demo

The above flowchart describes the process of submitting a new demo. Among all three steps, we need particularly explain how to get **demo path**. According to our design, we

dynamically assign a unique directory for each demo to store all its demo files. The directory name is related with the value of *demo_id* in **demo info** table. For example, if the *demo_id* equals to "*5*", the directory name will be "*demo5*". When the user submit a new demo, the demonstration management will search into the **demo info** table, and get a new *demo_id*, then the management will create a new directory(**demo path**) for uploading the demo files.
Moreover, in order to display all the available IDIAP demos, we also dynamically create URL for each demo, based on the relation between *demo_id* and **demo path**.

4. DEVELOPMENT ENVIRONMENT

The IDIAP demonstration management system is interactive, web-based and platform-independent. The interaction was designed toward a delicate balance between the needs and expectations of users and the capabilities and limitations of technology. All the web pages were written based on **HTML**. Generally the development part of the system was implemented by **PHP**. Particularly we use **PHP** and **MYSQL** combined for creating data-driven usage(2), which contributes to storing the information into database; displaying available demos; administrating the demos; sending email to demo Master, uploading the demo files…Among all these fundamental purposes, uploading the demo files was implemented via PHP HTTP POST upload mechanism. One tricky thing here is to give full control over the directory which is allowed to upload. The maximum size of uploading file is defined in *"php.ini"*. (1) As mentioned above, the user can see all the uploading files, but the limitation is that the system would not give him the privilege to delete the uploading files. If he finds there is a mistake with uploading files. He can upload again, and send email to demo Master to explain his redundant file.

5. SUMMARY

So far, we have described the concepts we applied on IDIAP demonstration management systems. The advantages of this system are:

- Excellent way to introduce all demos to innovative
- Quicker sorting and updating all demos
- Automatic acceptance of new demo
- Convenient administration
- Abundant usage of MYSQL features
- Easy adapt for new changes.

6. REFERENCES

(1) http://www.php.net/

(2) « *MYSQL* » *Paul Dubois, 2000 by New Riders Publishing*

(3) http://www.idiap.ch/

(4) HTML Code Tutorial: http://www.faqs.org/docs/htmltut/index.html

(5) « What is a Web Application ? » by Bob Baxiey

APPENDIX File Description

1. demos.php – retrieves all demos' info from DB and list them in the IDIAP demonstration page, support sorting demo by type and year.

2. submit.php – a form which let user to fill info, for the sake of submitting a new demo.

3. demoConfirm.php – list all the info which the user input, the user can confirm it or modify it; create a new directory for this new demo; upload demo files, uncompress it and list all files in a window; display the outlook how this new demo looks on the IDIAP demonstration page;

4. ok_email.php – the reaction after the user click *'confirm'* on *"demoConfirm.php"*, input all info into DB, and send a email to inform demoMaster.

5. demoAdmin.php –It lists all demo's name, the time of creation, and the statue of publish etc. The demo administrator can change the statue of every demonstration, and press *'execute'* to function it.

6. demoPub.php – the reaction after the user click *'execute'* on *"demoAdmin.php"*, update the statue info of the all demos in DB.

7. header.inc – the definitions for the DB name, Table name, Path name etc.