Information Technology for preservation and providing access to the archives in Vietnam

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The State Archives Department of Vietnam (SADV) was founded in 1962 and now is operating as the head agency in archives sector in Vietnam with the mission of to carry out the unified and centralized administration of archival work and archival national records at nationwide, including the task of applying information technology in archives domain. At present there are 15 divisions and units placed under its direct authority, as follows:

1. Office
2. Division of planning and statistics
3. Division of personnel, labour and wage affairs
4. Division of guidance for central archives
5. Division of guidance for local archives
6. Inspection
7. Vietnamese Archives Review
8. Research Center for Archival science
9. National Archives Center No .1
10. National Archives Center No.2
11. National Archives Center No.3
12. Center for security preservation of national archives
13. Information technology and data Center
14. Secondary School on Archives and office works No.1
15. Secondary School on Archives and office works No.2.

The total holdings kept at the three national archives centers are 30 linear kilometers of records dating back from fifteenth century to the present day. These are the most valuable and important parts of the National Archives Fonds of Vietnam. In order to preserve safely and make full use of archives, one of the primary measures directed by the SADV is to reinforce the application of IT in archives work.

The potential application of information technology for   archives in Vietnam has been taken into account early by SADV. In 1986 it was given the task of to conduct a research project at national   level on "Computerization of archives work". The project had focused on analyzing the nature and characteristics of archives information, requirements for its classifying, sorting and processing, fundamental principles and methods of application of informatics into archives.
Based on the research results, SADV has guided the extensive use of IT in archives sector and so far has gained the outcomes as follows:
1. Infrastructure of IT
At present, all national archives centers from central and provincial level, archives divisions in ministries and central agencies have been equipped with computers, a number of which are connected into local area network to provide access to archival databases. As estimated initially, there are about 250 computers have been furnished for the divisions and units of the SADV. The head office of SADV has two communication networks: the local area network for retrieving databases available in the office and Research Center for archival science; and

the wide communication network connected with the Government Office, ministries, central agencies an provinces, cities of central authority.

2. Databases and application software
2.1. Databases

To protect those records which are especially precious but in the risk of deterioration, SADV has used the IT for setting up databases to serve the management, multi-user access and security preservation of Chauban (Emperor's records), Mocban (Woodblock records) of Nguyen Dynasty, and sound recordings, on CD-ROM. As a result, by 2001 year, 582 volumes of Chauban in total of 365,000 page images, 55,000 images of Mocban and 1,500 sound recording hours have been reformatted into CD-ROM.

The above mentioned records have been stored in the CD-ROM discs with two information levels:
- Information of first level: include the reformatted originals of Chauban, Mocban records that are stored in the form of image files or the sound files for sound recordings.
- Information of second level: consists of brief descriptions on the key elements of document or speech such as the author of document, date, page number, storage location, content (translated into Vietnamese), title of speech, time and place of recording …

When building the databases these two information levels have been coded compatible with the structure and integrated with each other to meet various requirements of searching and retrieving information.

Beside that SADV has set up several other databases for automated searching of frequently used records groups like databases for the records of French colonial time with 35,000files, database for the administrative records of former Saigon Administrations with 20,000 files, database for the records of Premier's Office with 20,000 files.

2.2. Application software

The current database programs have been written in language of Visual Basic and database software of Access for fulfilling the main functions such as data entry and updating, data storing, searching and retrieving according authorized thesauruses, reporting search result and printing the reformatted records. Although the application software satisfies different needs of information management and utilization, but it has also a number of limitations as follows:
- The current management program doesn't meet fully the requirements of information searching, the user and computer interface is not quite friendly.
- The database software of Access can not manage large databases.
- The program has been designed for single computers, therefore the management and utilization of the system and all databases are not convenient.

3. Future development

Under the framework of Government Programme for computerization of administrative works, in the near future SADV will be carrying out a project to use IT in the archives domain in a large and systematic scale. Among the targets to be achieved, there will be the task of designing and developing uniform rules for data description, input, output, report patterns for management and utilization of archival records in various forms and the levels of

information management. In addition, other matters also need to be solved uniformly for all archives sector that are:
- Operating system
- System software
- Database software
- Programming tools
- Rules for information   description like abbreviations, capitalization, writing foreign names…

Based on the above mentioned uniform rules the information systems will be integrated as follows:
- On the ground of the system software like Informix, SQL Server, Oracle, CDS/ISIS, Visual Basic, Visual Foxpro, Lotus Note, a new software will be developed to convert existing data managed by the above-mentioned software into data with standard structure .
- Using the tools of Informix, SQL Server or Oracle to develop an application software for managing databases in accordance with defined overall solutions.

In regard to the organizational matter, it is necessary to set up in every national archives center, provisional archives center, archives division of ministry and central agency a section or unit to take responsibility for managing computer systems under uniform guideline and direction of SADV on implementing   application programs of records management and archives work. The systems will include the local area networks of agencies and institutions which are connected to the unit specializing in data entry and updating, to the main servers, reference rooms, concerned authority bodies and the databases on administration of archives and archives work as well on the holdings.

In relation to the use and exploitation of the systems, all data regarding the state administration of archives work, the scientific and technological archival information and documentation will be standardized, updated regularly and available for access in a wide communication network between SADV and it subordinates as well as with ministerial archives divisions and provincial archives centers. The information on archival records will be served in two forms:
- Online: consists of information of second level on the fonds (records group), files or document, and operates as a tool for introduction, dissemination and location of the records kept at archives repositories and available for reference at reading rooms of the national archives centers. This information will be stored in hard discs.
- Semi-online: after finding out the list of the concerned records from the online system, the users may send remotely their requests to the archives centers. According to the requests, the reference staff of the archives centers will search the records, digitize them and send to the users for reference. If the records have been digitized and stored, they need only retrieve and provide to the users.

In parallel with organization of the use of archives in the above mentioned way, SADV will prepare and issue regulations regarding the access to the archives and information security. Based on these rules the information and data will be selected for wide use.