For discussion on 9 December 2010

# Legislative Council Panel on Information Technology and Broadcasting

## Media Asset Management System for Radio Television Hong Kong

#### Introduction

This paper briefs Members on the plan for Radio Television Hong Kong (RTHK) to establish a Media Asset Management (MAM) system to preserve its programme archives.

#### **RTHK's archives**

2. RTHK started its radio broadcast service in 1928 and its television productions in 1970. Over the years, a wealth of media archives has been accumulated. At present, the archives consist of -

- (a) *video*: over 80,000 hours in over 187,000 tapes of different recording formats;
- (b) *audio and music*: over 310,000 hours in over 370,000 tapes, vinyl discs, CDs, etc;
- (c) *photos*: over 1.9 million photos; and
- (d) *reference materials* (including scripts, posters, programme related documents, books, CDs, DVDs, articles, etc): over 755,000 items.

3. The above archives contain not only the final form of RTHK products (e.g. a TV programme), but also a collection of raw footages, background and related materials. A lot of these materials have very

high historical and cultural values (e.g., photos, sound recordings and video footages of important historical events, characters and performances). They form an important part of Hong Kong's precious cultural heritage and people's collective memories. Safekeeping these materials for the benefit of our coming generations is therefore one of the imminent tasks for RTHK. We cannot afford losing these materials and must devise a way to protect these significant assets of our society.

4. These materials are currently kept in RTHK's libraries and storage areas in their original forms. Some of these archives date back to the 1940s or even earlier, and are disintegrating because of aging. In recent years, RTHK has been restoring a limited amount of high-risk archives and digitising them for storage through deployment of internal resources. However, these small-scale efforts cannot cope with the rate of deterioration. In addition, the lack of a modernised and standardised cataloguing and storage system in digital form makes it difficult to retrieve the materials for new production purposes or for use by the public.

# Managing the archives

5. Many overseas broadcasters have established MAM systems. In essence, these are specialised information technology systems set up to store video and audio materials in digital form in a systematic manner. A schematic diagram showing the key components of a MAM system is at the **Annex**.

6. RTHK has been studying the establishment of an MAM system for some time. When RTHK conducted an Information System Strategy Study (ISSS) in 2005, a MAM system was proposed. In February 2009, RTHK conducted a consultancy study to estimate the resources required for digitising RTHK's archives and to propose recommendations on the way forward. As part of the study, RTHK has considered to what extent the archives should be digitised, having regard to the costs and benefits of digitisation for the materials concerned. We estimate that the most valuable materials constitute about 25% of the total pool of materials. These include television dramas from 1970s onwards, library shots and school programmes, recorded music on 78 rpm, recorded music before the 1970s, radio dramas, Cantonese and Mandarin songs, Chinese operas, and photos since the 1970s, etc.

7. RTHK commissioned a follow-up study in January 2010 to design the MAM system that will support the needs of different RTHK users through a systems analysis and design study, and set up a physical prototype of the MAM system. This consultancy is still on-going and is expected to be completed by second quarter of 2011.

8. When the follow-up consultancy is completed, the foundation for setting up a MAM system for RTHK will have been laid. The prototype system can be scaled up into production mode by procuring the necessary equipment and human resources to systematically transfer the video and audio materials into digital format and storing them in the MAM System.

#### Proposed MAM system for RTHK

9. We will earmark funding in the estimates for RTHK to embark on the MAM project starting from the next financial year 2011-12. The project will enable RTHK to -

- (a) restore archive materials at risk;
- (b) digitise the most valuable portion of RTHK's archives (about 25%); and
- (c) provide specialised storage for the archives which will also facilitate subsequent access and retrieval.

RTHK will arrange for the materials that will not be digitally archived for the time being to be properly stored. RTHK will regularly review the need for these to be digitized and the capacity for doing so.

10. **Restoration/digitisation**: To ensure that the digitised copy is of a high quality, the materials to be digitised will need to be professionally cleaned, and restored if required, before their contents are

changed into digital form. We envisage that there will be some challenges for this restoration/digitisation process because the playing machines for some of these materials are no longer in existence (e.g., RTHK now have about 1 000 18-inch metal audio discs dating back to the 1940s for which a reader is not readily available), and for others (e.g., open reel audio tapes), the playing machines and/or parts are no longer in production. We need to find sufficient players of acceptable quality and experienced operators to re-play the materials for restoration/digitisation.

11. **Storage**: As a safeguard against any damage of the digital copy, it is established industry practice that the original copy should continue to be kept after the content therein has been digitised. In order to prolong the life of the cleaned and restored copy as much as possible, we will provide storage facilities with suitable temperature, humidity and dust control specifically designed for archive keeping<sup>1</sup>. Such specially designed storage will be located in selected government premises.

12. **Other benefits:** Apart from cultural heritage preservation, the MAM will also bring about other benefits -

- (a) the metadata collected together with the digital storage system will shorten the time required for producers to search for library materials, and the time for retrieval and preview of materials by producers to decide whether the materials are suitable for their new productions and, if so, how to manage the intellectual property rights issues involved for new productions;
- (b) RTHK's audio and video production systems are being migrated to IT-based systems, in line with the world trend in broadcasting. The MAM system, being an IT-based system, will be integrated with the production systems, to achieve synergy and more efficient production workflows; and
- (c) the digitised files can be made available to the public, notably professional media producers, universities and

<sup>&</sup>lt;sup>1</sup> The existing storage, though air-conditioned, is not yet up to the required standard in, e.g., humidity and dust control.

researchers, etc, much more easily via electronic means.

13. **Public access:** One of the purposes of setting up a MAM system is to facilitate public access to and enjoyment of the RTHK archives. We will work out the detailed design and arrangements for this purpose, including the contents to be released, methods of access, intellectual property rights management and any charging for the services, etc. We will keep the public informed of these aspects in launching the system.

## Advice sought

14. Members are invited to note developments and offer any advice they may have on the project.

Commerce and Economic Development Bureau / Radio Television Hong Kong December 2010

#### Archivists (檔案管理員) Camera攝像機 6 Indexation and Transfer DVD 影碟 索引及轉移 Publication 發行 Ingest Workstation Film 電影母带 0. 攝取工作站 Media Asset Management Hierarchical Tape 影帶 System (MAM) & Storage Search & Edit Search Engine Management **Video Sources** Video Tape 搜尋及編輯 (HSM) 媒體資產 (影像來源) Recorder 階層式儲存 管理系統 Quality (VTR) 設備管理系統 及搜尋引擎 Check 磁带錄像機 Applications (應用程式) 質量核查 Repurpose Ingest Workstation 不同層面的 攝取工作站 重新應用 **Ingest & Validation** (攝取及確認) News Network Data Tape Attached Library Distribution Storage (NAS) 發布 數據磁帶庫 網絡附加存儲 Infrastructure (基礎建設) Other **Documents** (其他檔案類型) **Offsite Archive** 遠端檔案庫

# Annex: Media Asset Management System Technical Specification 附錄:媒體資產管理系统技術圖則