

國家電影及視聽文化中心  
「2023 年臺灣經典電影數位修復 II」藝文採購案  
需求說明書  
Taiwan Film & Audiovisual Institute  
Requirements Specification  
“Digital Restoration of Taiwanese Classical Movies II in 2023”  
Cultural and Arts Procurements

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一、計畫說明：

本中心長期推動電影數位修復及增值利用，除自主修復及推廣之外，亦委託電影修復專業團隊辦理臺灣經典電影數位修復，以期擴大電影產業參與，加速臺灣經典電影保存及修復，促進臺灣經典電影能見度以及國際交流。本案將委請專業團隊辦理 1960-1970 年代台語片及國語片數位修復 4 部，並辦理修復成果報告、視訊發表及意見交流。

**I Description:**

Taiwan Film & Audiovisual Institute (TFAI) has been promoting film digital restoration and its value-added utilization for a long time. TFAI not only restores Taiwanese classical films by itself, also outsources to the professional teams for restoration in order to advocate the participation of the industry, to elevate the amount of restoration, and to increase the visibility of Taiwanese classical films, also aiming for international exchange of restoration experience. For this procurement, TFAI will entrust a professional team to restore four Taiwan films from the 1960s to 1970s, write a restoration report, and present the result of restoration to the TFAI team and have Q&A section.

二、工作項目：

執行本中心指定之臺灣電影片數位修復，片名為《母親三十歲》、《神龍飛俠》、《月光大俠》及《飛天怪俠》，共計 4 部，時間長度合計約 333 分鐘。各部電影之膠片及數位掃描檔規格如附件一；各部電影之應修復範例，如附件二；各部電影工作項目如下：

(一)影像修復

1. 去閃爍及穩定

修正膠片因酸縮及接點周邊所造成跳動、扭曲和變形，移除影格間亮度閃爍及變色。

## 2. 去汙損及數位修補

仿製相鄰影格之相同區域或複製像素貼於受損影格，以移除髒點、汙痕、刮傷、化學汙漬、裂痕、結晶及霉斑等缺陷。

## 3. 其他(如無則免)

依附件二範例所提，進行片頭字幕合成、影像重建、畫格替換或剪接該片段。

### (二)聲音修復

#### 1. 雜音去除或降低

去除或降低影片原始製作條件下不應存在的雜音，例如噪音、雜音、爆音、哼聲、消波、嘶聲等。

#### 2. 其他(如無則免)

進行影音同步、嘴型同步、音量校調、音準校調等。

### (三)調光

為影片整體色彩平衡，進行三原色色彩校正，建立風格色調以及鏡頭之間連續性。

### (四)輸出

執行數位修復影像算圖，影部及聲部整合及同步，並使用數位母檔製作各種儲存或發行規格。

### (五)修復成果報告、視訊發表及意見交流

#### 1. 報告書內容應包括：

- (1)影像修復、聲音修復、調光、輸出等工作之過程紀錄；
- (2)影像修復、聲音修復、調光等工作之前後對照。

#### 2. 視訊發表及意見交流：

- (1)計 1 場次，時間長度至少 80 分鐘以上；
- (2)對象為本中心典藏及數位修復業務相關同仁；影像修復、聲音修復、調光、輸出執行人員應出席意見交流。
- (3)修復成果發表及意見交流使用語言以中文，廠商以其他語言者，應自備口譯人員作雙向翻譯。

## II Work Item

Execute the restoration of Taiwanese Classical films assigned by TFAI. **The titles are “Story of Mother”, “Dragon Superman”, “Moonlight Superman”, “Skyfly Superman”.** The total number of films is four, and the total length of films is

**about 333 minutes.** The specifications of films and digitization of the films are as **Appendix I**; The examples of should- be-restored are as **Appendix II**; and the work items are as the following:

### **(I) Image Restoration**

#### **1. De-flicker and Stabilization**

Correct jumps, deformations, and distortions causing by splices or shrinkage. And remove flickers and discoloration.

#### **2. Dust Busting and Digital Repair**

Clone the same area on adjacent frames., or copy pixels from a good frame to a bad frame to remove defects such as dirt, smudges, scratches, chemical stains, cracks, crystals, molds, etc.

#### **3. Others ( if no, then exempt)**

According to the examples of Appendix II, composite the title sequence, rebuild images, replace frames or edit the sequence.

### **(II) Sound Restoration**

#### **1.Noise Removal or Reduction**

Remove or reduce audio noise that shouldn't exist under the original condition of film production, such as noises, the sound of clicks, pops, hums, clips, hiss, etc.

#### **2.Others ( if no, then exempt)**

Synchronize video and audio, lip-sync, calibrate loudness and pitches, etc.

### **(III) Color Grading**

To set the overall color balance of the film, to perform primary color correction in order to establish of the style and color continuity between shots.

### **(IV) Film Output**

Render restored images and sounds, integrate and synchronize the images and sounds, and create various formats for distribution and preservation by using digital masters.

### **(V) Restoration report, video presentation and Q&A section with the TFAI team**

### **1.The content of restoration report should include:**

- (1) The process of image restoration, sound restoration, color grading, and film output.
- (2) Before-and –after comparison of image restoration, sound restoration, color grading.

### **2. Video presentation and Q&A section with the TFAI team**

- (1) 1 session; over 80 minutes.
- (2) participants: the staffs of Division of Preservation and Restoration, TFAI. The operators of image restoration, sound restoration, color grading, and film out will attend.
- (3)The presentation and Q&A section should be in Mandarin. The tenderer who speak other languages should have its own interpreter.

### **三、 注意事項**

- (一)投標廠商得於等標期預覽影片狀況(壓縮檔)，請洽本中心承辦單位索取連結網址。
- (二)數位修復作業決策以及修復程度，應經本中心同意。
- (三)數位修復作業之影像修復，應避免以整格仿製方式進行修復，若仍需使用整格仿製，須以內插或其他方式再處理，避免產生重複影格。

### **III Precautions**

- (I)The tenderer may preview film condition (compressed file) during time-limit for tendering. Please contact TFAI's Organizer for the URL link.
- (II) The policy and the degree of restoration should be agreed by TFAI.
- (III) Image restoration should avoid to clone the whole-frame, otherwise, it should re-processing with frame interpolation or other methods to prevent duplicating the whole frame.

### **四、 工作期程**

各履約分期及應交付工作成果如下 (交付規格及數量，請參見附件三):

#### **(一)第 1 期工作成果**

於決標日起 **40 個日曆天**內完成並提送下列工作項目予本中心辦理審查：

修復樣片(修復前後對照影片)輸出，各部影片 1 式 1 份，各部影片之修復後及修復前影片時間長度至少(含)5 分鐘，合計至少(含)10 分鐘。

(二)第 2 期工作成果

於 112 年 9 月 11 日前完成並提送下列工作項目予本中心辦理審查：  
修復完成影片輸出，各部影片 1 式 1 份。

(三)第 3 期工作成果

於 112 年 11 月 10 日前完成並提送下列工作項目予本中心辦理驗收：

1. 最終修復影片各式規格輸出，各部影片各式規格 1 式 1 份。
2. 最終修復前後對照影片，各部影片 1 式 1 份。各部影片之修復後及修復前影片時間長度至少(含)5 分鐘，合計至少(含)10 分鐘。
3. 修復成果報告書紙本及其電子檔，紙本 1 式 2 份，電子檔 1 式 1 份。
4. 修復成果報告發表及意見交流視訊會議 1 場之辦理紀錄(照片紀錄及簽到表)，紙本 1 式 2 份，電子檔 1 式 1 份。
5. 各式輸出規格之證明文件(由播映設備或軟體進行截圖)，紙本 1 式 2 份，電子檔 1 式 1 份。

### III Work Schedule

The work schedule and deliverables of each delivery are as following (Details of Specification and Quantity are as Appendix III):

#### (I) The First Delivery of Work Result

**Complete and delivery the following within 40 days from the day of tender is awarded:**

Sample output of film restoration (the before-and-after comparison of film restoration), one copy of each film. The time length of before–restoration and after-restoration of each film should be above(inclusive) 5minutes. The total time length should be above(inclusive) 10 minutes.

#### (II)The Second Delivery of Work Result

**Complete and delivery the followings before September 11th, 2023:**

Complete output of film restoration, one copy of each film.

#### (III)The Third Delivery of Work Result

**Complete and delivery the followings before November 10th, 2023:**

1. **Final output of film restoration** with various specifications, one copy of each specification of each film.
2. **The before-and-after comparison of final output of film restoration**, one copy of each specification of each film. The time length of before–restoration and after-restoration of each should be more than (inclusive) 5 minutes, and total time length should be more than (inclusive) 10 minutes.
3. **The report of film restoration work result**, two hard copies, and one copy for electronic document.
4. **The record of video presentation and Q&A section** (photos and attend sign-in sheet included), two hard copies, and one copy for electronic document.
5. **The documents of specification and validation reports (resolution, frame rate, etc ) of final output**, two hard copies, and one copy for electronic document.

## 五、服務建議書

廠商參與本案投標應提交服務建議書 1 式 10 份，供本案評選委員會委員評選使用。服務建議書規範及內容如下：

### (一)規格：

1. 紙張大小：以 A4 規格大小繕打。若有使用更大紙張規格之需求，仍須摺疊為 A4 大小。
2. 繕打及裝訂方式：由左至右橫式繕打，加註頁碼，加裝封面，封面上註明廠商名稱、本案名稱，印刷採雙面列印，裝釘線在左側。
3. 目錄：應標示各章節頁碼。
4. 服務建議書使用文字：中文(正體字)或英文。

### (二)內容：

#### 1. 公司營運及歷年實績

請說明(1)公司營運狀況、組織架構；(2)歷年執行電影修復實績。

#### 2. 專案管理

請說明(1)人力配置及成員重要經歷；(2)影片修復相關軟硬體設備；(3)各工作項目之作業流程及其品管；(4)工作期程規劃及風險管理。

#### 3. 數位修復技術及品質

請說明(1)各部影片應修復狀況分析及修復策略；(2)影像修復、聲音修

復、調光、輸出之預期效果及相關案例。投標廠商得以本案影片或歷年實績為例。

#### 4. 標價分析

請依附件四表格格式報價，填列各項單價及總價，並於備註欄說明各細項金額。總價不得超過本案預算金額。本案不允許以外幣報價。

#### 5. 其他證明文件（如無則免）

承攬本案之能力證明文件、擬分包項目、分包廠商資訊及合作承諾書等。

### V. Service Proposal

The tenderers participating in tendering should submit **10 copies of the service proposals** for evaluating a winner tender by Procurement Evaluation Committee. The specifications and content of the service proposal are as the followings:

#### (I) Specification

##### 1. Paper Size:

Type in A4 size. If a larger paper size needed to use, it still should be folded into A4 size.

##### 2. Typing and Binding Method:

Type from left to right horizontally, add page numbers, add a cover, indicate the name of the tenderer, indicate the title of the procurement on the cover of service proposal, and print on both sides with the binding line on the left.

##### 3. Table of Contents:

Mark the page number of each chapter.

##### 4. The language of Service Proposal

In Chinese (Traditional Chinese) or in English.

#### (II) Content

##### 1. Company Operations & Film Restoration Performance Over the Years

Provide the following information:

- (1) company operating conditions and organizational structure;
- (2) performance of film restoration over the years.

##### 2. Project Management

Provide the following information:

- (1) the composition of members and their key experience;

- (2) relevant software and hardware equipment for film restoration;
- (3) the operating procedures and quality controls for each work item;
- (4) the planning of work schedule and risk management.

**3. Film Digital Restoration Technology and Quality**

Provide the following information:

- (1) the analysis of film condition that should be restored, and the restoration strategy, of each film;
- (2) the anticipating restored result and the relevant examples, of image restoration, sound restoration, color grading, and film output. (The tenderer may use the films of the project or the performance in the past years as an example.)

**4. Tender Price Analysis**

Provide a tender price analysis according to the form of **Appendix IV**. Please fill in the unit price and total price for each item, and provide the detail of each item in remarks column. **Total tender price shall not exceed TFAI's budget amount. Foreign currencies are NOT permitted for pricing.**

**5. Other certified documents (if no, then exempt)**

Provide the certified documents of the ability, portions of the work to be subcontracted, the company information of portions of the work to be subcontracted, letter of Commitment, etc.

## 六、 承辦單位

本中心典藏與數位修復處數位修復組陳小姐；電話：02-2676-2634 分機526；EMAIL:ychen@tfai.org.tw。

## XI Organizer

Department of Digital Restoration, Division of Preservation and Restoration, TFAI.  
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