



**SMITHSONIAN INSTITUTION**  
**NATIONAL MUSEUM OF AFRICAN AMERICAN HISTORY AND CULTURE**  
**STATEMENT OF WORK**  
**ARCHIVES MICROSERVICE SCRIPTING CONTRACTOR**

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## **1. INTRODUCTION**

The National Museum of African American History and Culture (NMAAHC) at the Smithsonian Institution (SI) needs professional, non-personal, work-for-hire services to design, write, test and deploy microservice processing scripts.

## **2. SCOPE OF WORK**

This Statement of Work (SOW) is issued by the National Museum of African American History and Culture (NMAAHC) at the Smithsonian Institution (SI), for technical professional, non-personal, work-for-hire services to design, write, test and deploy microservice scripts for processing both born-digital archive files and digital archive files derived from analog film, video, audio, and other time-based media formats. Additionally, expert input may be requested on other pan-unit Smithsonian projects that relate directly to NMAAHC's work with microservices for processing digital archive files.

Work will be scheduled at mutually convenient times for the contractor and the Contracting Officer's Technical Representative (COTR).

The project shall take place at a location convenient for the contractor. The location must have readily available high-speed internet and cellular connections.

## **3. QUALIFICATIONS**

The contractor must have the following qualifications:

- Specialized knowledge of and experience with digital preservation workflows for archives and techniques for time-based media formats and works
- Specialized knowledge of and experience with GitHub and version control software
- Specialized knowledge of and experience with bash scripting language and creating batch processing scripts
- Specialized knowledge of and experience with the command line interface on Apple computers
- Specialized knowledge of and experience with IDE or a source code editor such as Sublime, TextMate, Atom, etc.
- Specialized knowledge of and experience with common video and audio codecs and containers including FFV1 and Matroska
- Specialized knowledge of and experience with various born-digital camera card formats and data structures and files – e.g. Cannon C300 camera card data and files created when shooting audio and video
- Specialized knowledge of and experience with the Homebrew package manager
- Specialized knowledge of and experience extracting, cleaning, and interpreting data from digital files
- Basic understanding of digitization workflows including transfer-monitoring and quality control for film, analog video and audio
- Experience working with FFmpeg
- Basic understanding of POSIX standards

## **4. SPECIFIC TASKS**

The contractor will perform these tasks:

- Assess current NMAAHC microservice scripts for purpose and usability.
- Communicate with COTR and NMAAHC Media Archives & Conservation team to understand digital preservation goals and workflows.
- In bash scripting language write scripts to perform NMAAHC digital preservation tasks and seek feedback from COTR and NMAAHC Media Archives & Conservation team to make improvements.



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- In coordination with COTR maintain NMAAHC GitHub page and schedule releases of code when appropriate.
- Dutifully comment all code to ensure ease of understanding what a script does and how it works.
- Troubleshoot technical difficulties.
- Assist in training NMAAHC Media Archives & Conservation staff in basic scripting, operation of GitHub.
- Notify COTR of any problem or situation that impedes completion of any assignment.
- Notify COTR when not available for work or with changes in schedule.
- Be diligent, thorough, meticulous, and consistent in following NMAAHC guidelines.

#### **5. PAYMENT SCHEDULE AND DELIVERABLES**

Using contractor equipment and software, and in accordance with workflows already prescribed by NMAAHC Archivist & Conservator, the contractor will write scripts in the bash language to automate NMAAHC digital preservation and processing workflows.

The contractor will provide a summary of tasks to submit with their invoice.

Payment will be made upon completion and acceptance of work and receipt of proper invoice referencing the purchase order number.

#### **6. PERIOD OF PERFORMANCE**

All work shall begin on or about May 1, 2023, and be completed on or about April 30, 2024. Bidders are requested to submit quotes for:

- One price for the base period for 200 hours of services (May 1, 2023 to on April 30, 2024)
- One price for option 1 to extend for 200 hours of services (May 1, 2024 to April 30, 2025)

#### **7. PLACE OF PERFORMANCE**

The project shall take place at a location convenient for the contractor. The location must have readily available high-speed internet and cellular connections.

#### **8. INVOICING**

The contractor may submit an invoice every two weeks in-line with Smithsonian Institution's payment schedule within 30 days and upon completion of deliverables and acceptance of work by the Contracting Officer's Technical Representative (COTR). The invoice will list the number of hours worked and the task performed. The contractor may also choose to invoice at intervals longer than two weeks as long as no one invoice is above 120 hours. Templates for invoicing will be provided by COTR.

#### **9. COSTS INCURRED**

Any costs incurred to perform the services under this Statement of Work, including transportation, equipment, software, hardware, internet access, cellular phone access, parking, meals, tips, and other incidentals, are the responsibility of the Contractor and will not be reimbursed, except where stated otherwise. If an in-person meeting in Washington, DC is required, contractor may bill for expenses related to travel and lodging as part of this contract and in accordance with US government federal regulations.



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**10. CONTACT INFORMATION**

The contractor shall be in contact with the NMAAHC Media Archives & Conservation staff throughout the duration of the contract via phone or email.

The Contracting Officer's Technical Representative (COTR) and Technical Point of Contact (TPOC) for this contract will be:

Bleakley McDowell  
Media Archivist & Conservator  
Smithsonian Institution  
Office of Curatorial Affairs  
National Museum of African American History and Culture  
Email: [mcdowellh@si.edu](mailto:mcdowellh@si.edu)  
Phone: 202.633.4970