NM STATE FOUNDATION

Bullet Bio Automation Guide

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PURPOSE

Previously, team members had to manually copy and paste specific fields from the database to compile these bios, a process that was time-consuming. This application automates the retrieval and formatting of donor data, significantly reducing the time and effort required to produce accurate Bullet Bios. It was developed to address the inefficiencies faced by the Research Team in the Advancements Services Team at NMSU Foundation.

This document provides an overview and user guide for the BulletBioAutomation application. This guide will walk you through the setup, functionality, usage, and troubleshooting processes involved in using BulletBioAutomation.

FUNCTIONALITY

BulletBioAutomation is a Python-based application that performs the following key functions:

1. **Data Extraction: Connects to a Microsoft SQL Server database to retrieve donor information.**
2. **Data Processing: Processes and formats the extracted data into a structured CSV file.**
3. **User Interaction: Offers a simple graphical user interface (GUI) for ease of use.**
4. **Error Handling: Detects and reports issues such as incorrect file formats or invalid Constituent IDs.**

TECHNOLOGIES AND SETUP

Technologies:

- **Programming Language: Python**
- **Libraries: pyodbc, pandas, tkinter**
- **Database: Microsoft SQL Server**

Prerequisites:

1. **Ensure Python is installed (for script-based use). However, end-users will receive the application as an executable (.exe).**
2. **Ensure access to the SQL Server database.**
3. **Dependencies are packaged with the executable. For script usage, install libraries using pip.**

WORKFLOW

1. The user provides a file path for an Excel file containing Constituent IDs.
2. The application reads the IDs and connects to the SQL database to retrieve corresponding donor data.
3. The data is exported as a CSV file, and the user is notified upon success
4. If IDs are invalid or the format of IDs are incorrect, the user will be notified of the error and the reason.

ERROR HANDLING AND LIMITATIONS

Common Errors:

- **Invalid File Format: Ensure the input is in .xlsx format.**
- **Non-Numeric Constituent IDs: Verify that only numeric IDs are provided.**

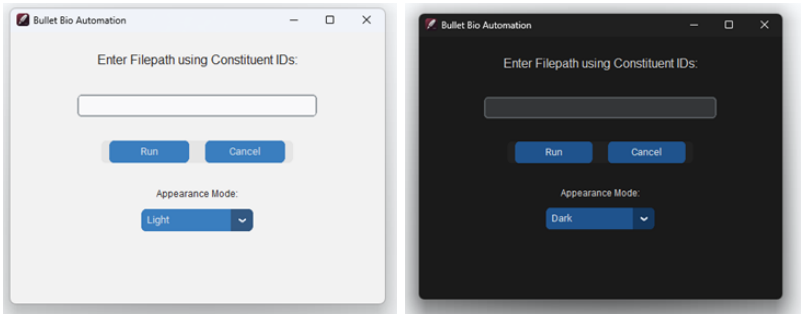
Limitations:

- **The file must strictly contain only numeric Constituent IDs with no headers.**

USE INSTRUCTIONS

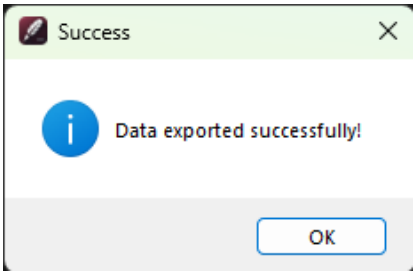
1. Prepare an Excel file with only numeric Constituent IDs.
2. Right click on application and click on properties
3. Check the ‘Unblock’ button and click apply
4. Launch the application

5. Copy Excel file file-path
    a. To copy file path from document, find file in file explorer, right click on document, and click on “Copy as path” or do Ctrl+Shift+Con the file selected.
6. Paste the file path into the input field.



7. Remove the quotations from the file path
8. Click 'Run' to process the data, and let the program run.
    a. Depending on how many Constituent IDs are provided, the program may take longer.
9. File explorer will be open and choose a save location for the output CSV.

10. **Once completed successfully, an icon will appear**



CONCLUSION

BulletBioAutomation automates the process of creating Bullet Bios for NMSU's Advances Services Team. It enhances productivity and accuracy, offering a user-friendly solution for handling large datasets efficiently.

CONTACT INFORMATION

For any questions, support, or feedback, contact:

- **Name: Brian Rodriguez (Data Analyst)**
- **Email: brian.rodriguez@nmsufoundation.org**
- **Phone: (575) 201-9638**

- **Name: Enrique Solis (Data Analyst)**
- **Email: enrique.solis@nmsufoundation.org**
- **Phone: (575) 646-3143**