# How to Update the Matrix Map - Documentation

### Overview

The **Matrix Map** is a tool to visualize the Cost and Impact of Library Programs**.**

* **Refresh Matrix Dataset.py** – Organizes the LibCal Program Events Dataset
* **Matrix Map Dataset.xlsx –** Stores the new Dataset used for the Matrix Map
* **Matrix Map Settings.xlsx –** Allows users to adjust the Cost and Impact of Programs
* **Matrix Map.pbix** – Visualizes the Matrix Map and Other Programming Data

### How to Update the Matrix Map Dataset

1. Export the Programming Events Dataset from **LibCal**
   * Log into **LibCal**
   * Go to Events Tab > Manatee Library Events > Event Explorer
     + From: **2020-01-01**
     + To: **Current Date**
     + Show Registration Responses: **No**
   * Select **Submit**
   * Select **Export Data**
     + The Filename should look like **“lc\_events\_[timestamp].csv”**
2. Move the **Exported Dataset** into the **Library Programming Matrix Map Folder**.

"S:\Library\Updated Statistics - Do Not Delete\Library Programming Matrix Map"

1. Run the **Refresh Matrix Dataset.py** file.

"S:\Library\Updated Statistics - Do Not Delete\Library Programming Matrix Map\Refresh Matrix Dataset.py"

* + Requires Python to be installed on your computer
  + Updates **Matrix Map Dataset.xlsx**
  + Updates **Matrix Map Settings.xlsx**

1. Open and Refresh the **Matrix Map.pbix**.

"S:\Library\Updated Statistics - Do Not Delete\Library Programming Matrix Map\Matrix Map.pbix "

A picture containing graphical user interface

AI-generated content may be incorrect.

### How to **Manually** Update Cost and Impact Scores for the Matrix Map

1. Open the **Matrix Map Settings.xlsx** file.

"S:\Library\Updated Statistics - Do Not Delete\Library Programming Matrix Map\ Matrix Map Settings.xlsx"

1. Select the **Program Options Worksheet** and adjust the Values as necessary
   * **Cost Score** and **Impact Score** Columns are used for the Matrix Map

|  |  |  |
| --- | --- | --- |
| **Program Type** | **Cost Score** | **Impact Score** |
| Story Time | 1.80 | 4.50 |
| Entertainment | 2.50 | 2.92 |
| Makerspace and Workshop | 3.20 | 4.08 |

1. Additionally, you may calculate ***Recommended******Cost Score*** and ***Recommended Impact Score*** using the additional criteria columns.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Connection and Belonging** | **Trust** | **Access** | **Community Reach** | **Creativity and Joy** | **Strategic Fit** | **Recommended Impact Score** |
| 4.5 | 4 | 4.5 | 4 | 5 | 5 | 4.50 |
| **2.5** | **3** | **3** | **4** | **3.5** | **1.5** | 2.92 |
| 4.5 | 4 | 3.5 | 3.5 | 5 | 4 | 4.08 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Cost Recovery / Net Cost** | **Resource Intensity** | **Scaling Difficulty** | **Funding Dependency** | **Operational Complexity** | **Recommended Cost Score** |
| 1.5 | 2 | 1.5 | 3 | 1 | 1.80 |
| **2** | **2.5** | **2** | **3.5** | **2.5** | 2.50 |
| 3 | 4.5 | 3.5 | 2.5 | 2.5 | 3.20 |

1. Save and Close the **Matrix Map Settings.xlsx** file when you are finished
2. Open and Refresh the **Matrix Map.pbix**

"S:\Library\Updated Statistics - Do Not Delete\Library Programming Matrix Map\Matrix Map.pbix "

A picture containing graphical user interface

AI-generated content may be incorrect.

### How to **Automate** the Updating Process

Since the Library Manager can update the **Matrix Map Settings.xlsx** and add the **LibCal Events File**, we should automate the following processes for **every other week.**

1. Run the **Refresh Matrix Dataset.py** file every other week
   * We can use **Automic** to run the Python Script from the directory:

"S:\Library\Updated Statistics - Do Not Delete\Library Programming Matrix Map\Refresh Matrix Dataset.py"

1. Schedule Automatic Refresh for **Matrix Map.pbix**
   * Requires Power BI Admin Privileges

A screenshot of a computer

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