**Overview of Bridge Dashboard Layer Scripts**

This directory contains the following:

1. create\_dashboard\_layer.py
2. CreateBridgeDashboardLayer.pynb
3. field\_updates.json
4. sym\_updates.json

Items #1 and #2 are equivalent, the only difference being that #1 is a standalone python script and #2 is a Jupyter Notebook that can run interactively. These are used for combining the annual Macomb County Bridge feature class (supplied by Macomb) with MDOT Bridge Condition Data. The result is published to the Macomb Portal.

The logic creates a layer that includes a few additional fields from the MDOT Bridge Condition Data, applies domains and aliases, applies symbology based on MDOT's "Lowest Rating" field, and can be used in the "Macomb Bridge Overview Dashboard."

#### Requirements:

* Scripts require ArcPy for proper publishing of data to the Macomb Portal
* Scripts require a Feature Class for Macomb County bridges
* Scripts require the "field\_updates.json" file that came with this notebook. The file should be placed in the same parent directory.
* Scripts require the "sym\_updates.json" file that came with this notebook. The file should be placed in the same parent directory.

#### Source Notes:

As of July 2021, the below information is accurate - in the future, it may be necessary to locate the data in the MDOT Open Data portal if the service url or item id change.

MDOT bridge service Open Data URL <https://gis-mdot.opendata.arcgis.com/datasets/bridgeconditionexport/explore?location=44.589006%2C-86.419237%2C7.83>

Item Details URL <https://hntbcorp.maps.arcgis.com/home/item.html?id=4b702058540945aa81286f47c376eb8c>

Service URL <https://services2.arcgis.com/67lKNkQ2TO1I3lhR/ArcGIS/rest/services/BridgeConditionExport/FeatureServer>

#### Data Notes

The Macomb Bridge Feature Class was found to share the following fields with the MDOT Bridge Condition Data:

['FEATINT', 'OWNER', 'YEARBUILT', 'YEARRECON']

The following fields in the Macomb Bridge Feature Class are not present in the MDOT Bridge Condition Data:

['ROADSOFTID', 'APPSPANS', 'BRIDGE\_ID', 'CITYTWP', 'CUSTODIAN', 'DECKMMBTYP', 'DCKSURFTYP', 'DECKTYPE', 'DECKWIDTH', 'DESAPPR', 'DESIGNLOAD', 'DESIGNMAIN', 'LENGTH', 'LOCATION', 'MAINSPANS', 'MATLAPPR', 'MATLMAIN', 'MAXSPAN', 'MDOT\_ID', 'MP', 'PAINTTYPE', 'PRNO', 'RAILTYPE', 'ROADNAME', 'STEELTYPE', 'STRU', 'YEAROVLY', 'YEARPNTD', 'WEIGHT\_RES', 'Type\_Work', 'Est\_Start', 'Est\_Finish', 'Total\_Cost', 'Status', 'Project\_TIP\_Year', 'Project\_Name', 'Project\_Limits', 'Phase\_of\_Project', 'BRIDGE\_RR\_2019\_COST']