MSDIS Update – February 2023

Updated Data
- MO Adult Daycare
- MO Rural Health Clinics
- MO Long Term Care Facilities
- MO Hospitals
- MO Licensed Pharmacies
- MO WIC Satellite Offices
- MO Intermediate Care Facilities for Individuals with Intellectual Disabilities
- MO Local Public Health Agency Districts
- MO Local Public Health Agencies

MSDIS General News
Throughout the month of February, MSDIS worked to deploy the 2022 US Census TIGER/Line data to our Hub site. As many of you know, the migration of these data to the ArcGIS Online environment has been complicated by major changes to the metadata standard used by the US Census Bureau. In order to make these data available through the same portal as the rest of Missouri's digital geospatial data, we have copied a handful of the most important metadata fields to our ArcGIS Online versions and inserted a link to the Census folder on the MSDIS Data Library. We continue to search for an easier way to make these data available to the public.

We also spent much of February working with the Division of IT and the College of Arts and Sciences to better prepare for the inclusion of NG911 data. While we have no concrete answers to any of our questions so far, we are working to better understand how funds can be dispersed from the state to the clearinghouse as well as our options for data storage and disaster recovery.

The current selection of 2022/2023 imagery is now available for download via [The Missouri Map](#). In a manner of speaking. Please see Appendix 1 for additional information which you will definitely want to be aware of before starting a download.

Finally, the Mizzou Spring Semester is officially half over. That means we have had eight weeks to monologue to a room full of 27 undergraduates about how awesome GIS is. While we're pretty sure that is more than enough to convince them to seek out careers in geospatial sciences, a little backup never hurt anyone. If any members of the MGISAC community would be interested in giving a guest presentation to our class, you are more than welcome to send us an email at voughtth@missouri.edu. This would be an ideal opportunity to talk about the cool GIS work that your agency does, recruit for summer interns, or just help ignite some interest in geospatial technology. Class meets on Tuesdays and Thursdays, from 11:00-12:15.

MSDIS Downtime
No outages were reported during February 2023.

MSDIS February 2023 Server Stats

Still looking for a Sawmill replacement to crunch our server numbers. Please stand by...

Appendix 1: The Monkey's Paw Curls

Over the past six months, one question has reigned supreme… when will the new imagery be available for download? Believe me, I get it. There is nobody more interested in these data being available for download than me. I want everyone who wants access to this data to have access to this data. I want to see what cool things you plan to do with all of this awesome new imagery.

Wanting you to have access to the data and actually getting you access are two wholly different things, though.

When MSDIS receives a new statewide imagery project, it is usually delivered as some combination of individual tiles grouped into folders according to county and as a series of pre-generated county-level mosaics. In the case of the 2022/2023, MSDIS received the data as a combination of deliverables. The MARC counties were, indeed, delivered exactly as expected. Owing to that, I really should have had those data available or download much sooner. The delay on that is entirely my fault and I do sincerely apologize. That being said, those county mosaics are now available for download from The Missouri Map, which can be accessed from the MSDIS website.

The Southern Missouri imagery collection is a different beast altogether. MSDIS did not receive any pre-generated mosaics. Normally that isn't a problem if the tiles are categorized into county folders because I can just use those to create my own mosaics. Well, we didn't county folders, either. The Southern Missouri imagery was delivered as three folders. One was a folder of 44,000+ SID files and one was a folder of 44,000+ GeoTIFF files. The third folder was the tile index. And that's it.

For the past six(ish) months, I have been trying to approach how to make this huge pile of data available in any meaningful way. For six months I have been stymied. My first thought was to mosaic everything to together and extract smaller collections on a county-by-county basis. While we could, technically do that, given the resolution of the data and the number of counties covered, I have no idea how long it would take, but it definitely wouldn't be a simple weekend project. Then I thought that I could make mosaics out of just the necessary tiles. Again, technically possible but hugely time consuming given the sheer amount of files to sift through. As you can imagine, while I have been trying to wrap my head around making these data downloadable, the requests for downloads have not slowed.

At this point, it is simply a matter of picking the least bad option and rolling the dice.

As of this morning, all of the new imagery is now available for download. The MARC county mosaics are available for download as county mosaics. Again, that should have been done months ago and I apologize for the delay. The huge pile of individual Southern Missouri tiles, on the other hand, have been split up into nine separate zones. Each zone is (roughly) a vertical column of Missouri counties. The goal was to make the division of tiles as easy as possible, therefore the zones were designed based on the southernmost row of tiles. Each Zone is composed of roughly 6000-10000 individual tiles and weighs roughly 40-50 GB. If you absolutely, positively cannot wait to download these data any longer, this is the fastest option that I can provide because the only other possible route would be for you to download a county one tile at a time, which would be roughly 900-1000 downloads.

This is not the end of the process. Anyone who knows me knows that I have no interest in leaving a job half-finished. As we move forward, I will work towards breaking each zone up into smaller pieces. Even splitting any given zone in half would be a tremendous help for anyone with spotty internet. Further, now that the massive pile of 44,000 tiles is now slightly more organized, it will (theoretically) be slightly easier. I feel I should emphasize, once again, that this is not a simple process, though. MSDIS is very familiar with taking data that are already split up into digestible pieces and making them available to

you. MSDIS is definitely not familiar with taking what is, essentially, a big bag of raw materials and assembling them into intermediate products. I am very confident that we will get through this with a solution that is agreeable to most MSDIS users. The current solution is a far cry from the silver bullet that I have spent the last six months searching for, and I am very VERY aware of that fact, but it is the best I can do with the hand that I've been dealt.