

Main Tasks

Task	Technology	Description	Details
Parsers	- Python - Clowder Geostreams	- Create python script that reads the data for idph csv files and posts it to the geostreaming API - The geostream data was originally used for geodashboard, but later the geostreaming data was also used by the web application.	Parser for both preprocessed files (by Bill) and later for unprocessed files.
Geospatial Web Application	- Flask - Openlayers - Plot.ly - Bootstrap - Javascript	- Show MIR data in geospatial app - select features in map by region or trap - popup shows overview 'show data' opens graph of data - run model through interface - run fortran model - run python model (converted and generalized from fortran model)	Get region geojson for regions, edit for use in application
arcus.sws.illinois.edu	- Ubuntu Linux - nginx	Install application on State Water Survey VM	
Run model (Fortran)	- Fortran - Called by Python	Run model by copying input files from idea.sws.uiuc.edu (where fortran model is running)	
Run model (Python)	Python	- Emulate Fortran model - Parses weather data in a general way so it can run without inputs of epi weeks, uses only one weather data file	
Get weather data endpoint	Python	- get weather data from http://www.rcc-acis.org/ api - parse into files	
Get forecast data	Python	- get weather data from http://sats.nws.noaa.gov api - parse into files	
Get cdc week and year by date	- Node.js - Called by python	- Function to get epi week and year by calendar date https://www.npmjs.com/package/epidemiological-week	
Get daylight hours	Python	Get latitude center of region and get daylight hours for that location though https://api.sunrise-sunset.org	
Run biggerstaff model	R	Run R library to get MIR	Not needed, the actual calculation is simple