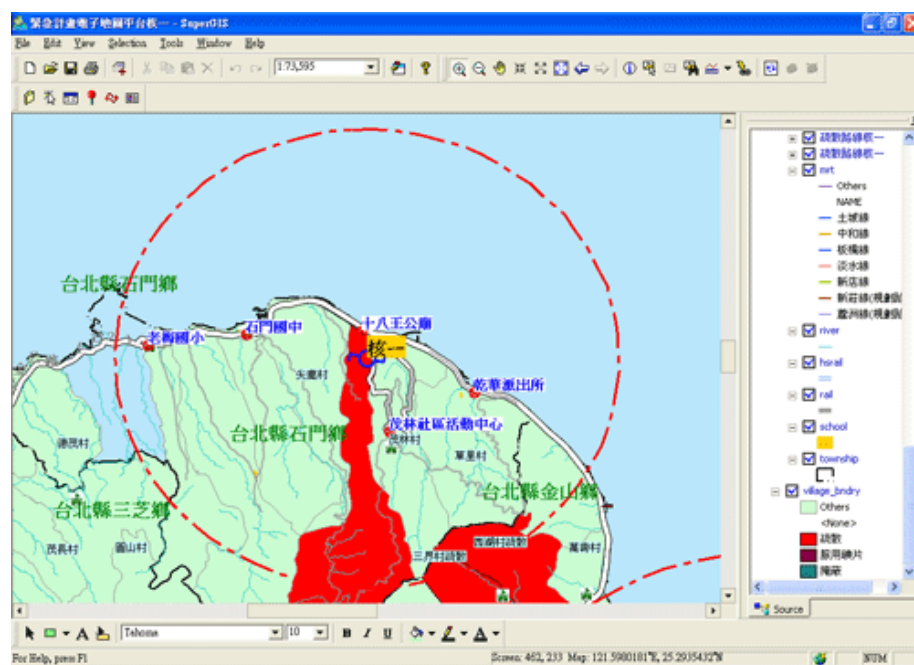


Scenario

Taiwan Power Company and the Atomic Energy Council, which is under the Executive Yuan, have thrown in much effort and funding on developing a set of emergency response system for the three nuclear plants that are currently operating in Taiwan. This is a precaution taken by them to make sure that the general public will receive the most time-efficient and updated news if emergency conditions do unfortunately occur. Due to the popularization of GIS technologies and digital maps, they have started to integrate their data, such as census and nuclear plant locations, onto the GIS platform for display, browse and analysis.

Challenges

The maps and relevant statistical data of the nuclear plants and the nearby villages were bought last year, so the issue that this system is required to solve is not creating first-hand data. Rather, the system will be used during emergencies, so it is a must that this system should respond quickly to real-time data. Real-time data, such as the radiant amount, will be fed into the system and the system will have to display the required emergency responses and statistics of the specific villages simultaneously. Therefore, the system will have to pay special attention as to how its functions can be made so that users can use them quickly and with ease.



Emergency Response Digital Map Platform Interface

Challenges

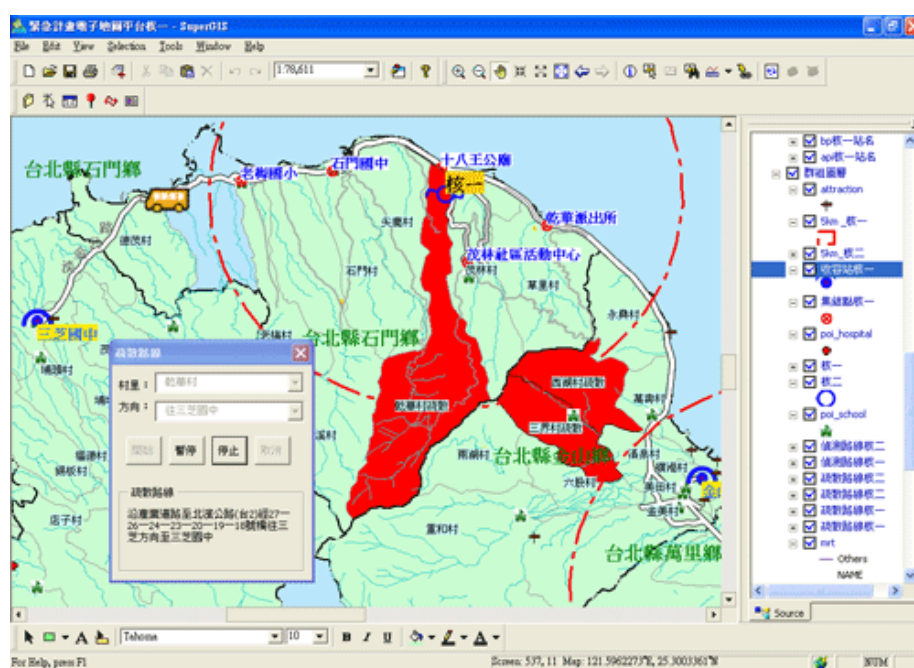
- Allow real-time data to be fed-in quickly to come up with the most appropriate emergency response for each village.

Solutions

The maps and relevant statistical data of the nuclear plants and the nearby villages were bought last year, so the issue that this system is required to solve is not creating first-hand data. Rather, the system will be used during emergencies, so it is a must that this system should respond quickly to real-time data. Real-time data, such as the radiant amount, will be fed into the system and the system will have to display the required emergency responses and statistics of the specific villages simultaneously. Therefore, the system will have to pay special attention as to how its functions can be made so that users can use them quickly and with ease.

Results

Once this system has been completed, relevant units and decision-makers can easily and rapidly import real-time data for the system to automatically determine the emergency response that should be taken by each village. With this function, the time for calculation and updating data can be reduced greatly, whereas emergency response decisions can be made much faster. This shall reduce the overall injuries, deaths and property losses. The evacuation information shown dynamically can also allow decision-makers to quickly find out the gathering points and evacuation routes available at each village, allowing them to quickly make decisions and publish their evacuation decisions for the general public. This way, people can evacuate from danger zones with lesser time lag.



The system can dynamically display the gathering points, evacuation route and accommodation stations.

Results

- Use SuperGIS Desktop as a platform for updating and displaying data..
- Allows Excel tables to be inputted so that the system will automatically read the table and determine the appropriate emergency response that should be taken by each village.
- Display the gathering point and evacuation route for villages dynamically.

Results

- This system allows relevant units and decision-makers to quickly know the emergency responses that each village should take.
- Dynamic evacuation information allows decision-makers to find out evacuation information and publish evacuation decisions in lesser time.