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16. Abstract The Traffic Survey Unit plans to establish a methodology in which it can assign each Portable Traffic Counter (PTC) station a seasonal group profile through a means of statistical and geographical analysis. An ArcView Geographic Information System application was programmed to allow the traffic survey sites to be analyzed by their spatial nature as well as by their statistical profiles. This program was created using the Avenue programming language. The program offers a user-friendly GIS interface that can aid analysts with updating the current seasonal groupings for traffic survey points across North Carolina. The user is able to select a site and display an attribute table listing its current seasonal assignment, its new seasonal assignment based on the best "best guess" as determined by the statistical analysis, and all the "best guesses" determined by that analysis. The user is also able to summon displays of the seven Seasonal Profiles, and the graphs and charts produced by the statistical analysis. Finally, the user is able to update the new seasonal assignment based on the results of the statistical analysis and its geographical proximity to the other stations, highways, and municipalities.					
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