

## COPLINK: Visualization for Crime Analysis DEMO

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We have applied various visualization techniques in the law enforcement domain, specifically to assist in crime analysis. These techniques include a hierarchical list, a hyperbolic tree, a time line tool, a periodic pattern tool, a GIS tool and a self-organizing map. We have integrated some of these techniques into a single synchronized tool (the Spatio-Temporal Visualizer shown in Fig. 1), which is flexible and scalable in order to allow for the incorporation of other visualization techniques in the future. The main strength of our visualization tools is the fact that they are incorporated into a single tool from which a crime analyst or detective can view the same data set in different ways. A change in one tool is automatically reflected in the other tools. For details on the various visualization techniques we have applied in the law enforcement domain and are incorporating within our ongoing COPLINK project, please refer to the accompanying paper in these proceedings, by the same title and authors. The demonstration will focus on the practical application of these tools in law enforcement. Detective Tim Petersen of the Tucson Police Department will demonstrate how these tools can be used in hypothetical examples of crime analysis cases.

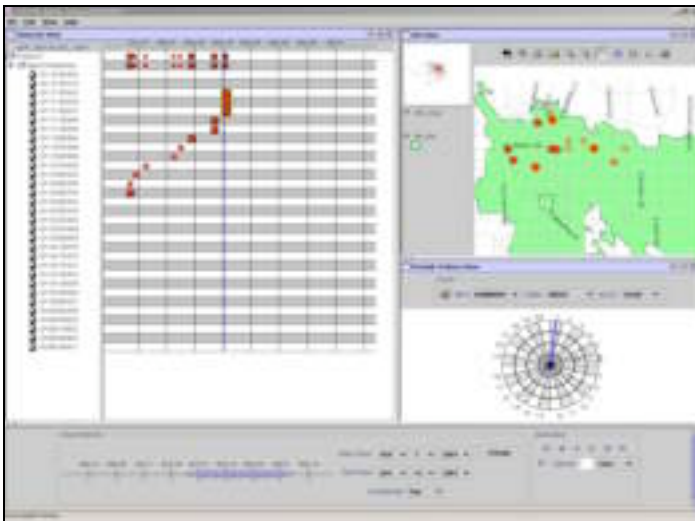


Fig. 1: COPLINK Spatio-Temporal Visualizer for Crime Analysis.

This tool presents a synchronized view of the same data using three different visualization techniques: a timeline (left pane), a GIS (top right) and a periodic pattern tool (bottom right). The focus can be switched easily to any of the three tools by moving the tool to the left pane that has a bigger display area. The time-slider (bottom) controls the range of time viewed. Data points highlighted in the timeline view are also highlighted in the GIS, those outside the time frame selected, appear faded in the GIS.