Report Title	Report Date: 2000

Traffic Control Plan and Visualization Software

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Professional Traffic Graphics

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Supplemental Funding Agency Name and Address (if applicable)

Supplemental Notes

Abstract

The Traffic Graphics Software is a comprehensive set of images for use in CorelDraw, including macros, which help produce professional diagrams easily and quickly. This evaluation examined the effectiveness of the software in creating traffic control diagrams. A full day of training was provided by the Professional Traffic Graphics. The software was evaluated by KDOT personnel from two departments: traffic engineering and public relations. Both areas found the software easy to use and capable of generating complex traffic control diagrams quickly and efficiently. The traffic engineering area felt that the software was powerful and easy-to-use, but not necessarily superior to the CAD-based software currently used for this purpose. The public relations personnel felt that this software would represent an improvement over their current methods of generating traffic control diagrams. One key difference between the two responses may be that the public affairs personnel had previous experience with CorelDraw, whereas the traffic engineering personnel did not. The public affairs personnel felt the software was a good investment and would recommend its purchase if the decision was theirs to make. In general, the Traffic Graphics Software is simple to use, although Corel Draw receives mixed reviews with respect to its learning curve.

COREL DRAW ADD-IN FOR TRAFFIC CONTROL DIAGRAMS
Professional Traffic Graphics

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Description
This product was a departure from the rest of the products evaluated. Rather than a roadside device or pavement marking, the Traffic Graphics Software is a comprehensive set of images for use in CorelDraw, including macros, which help produce professional diagrams easily and quickly. This evaluation examined the effectiveness of the software in creating traffic control diagrams.

Study site
The software package, including training materials, was evaluated by KDOT personnel in Wichita and in Topeka, and by The University of Kansas in Lawrence.

Performance Measures
The objectives of this application and the associated performance measures are shown in Table 3-22.

TABLE 3-22. Traffic Graphics Software: objectives and performance measures.

Objectives	Performance Measures
Improve the traffic control diagram development process	1. Time necessary to develop diagrams 2. Quality of diagrams 3. Flexibility of software options 4. Software learning curve

Experimental Design
Study type: comparison with current KDOT practices

Data Collected
Subjective observations
Collection method: Interview of KDOT personnel
Sample size: NA
Analysis technique: Summary

Objective data (computer resources required, cost of software, etc.)
   Collection method: observation
   Sample size: NA
   Analysis technique: Summary

Evaluation Results

   The package was evaluated by two different areas within the DOT, the Bureau of Traffic Engineering, and Public Relations. A full day of training was provided by the Professional Traffic Graphics, as well as copies of the Traffic Graphics Software (Corel Draw was purchased by KDOT).

   Then number of evaluators was insufficient to perform statistical analyses. However, some general conclusions can be drawn from the consensus of the evaluators on several issues.

   Both areas found the software easy to use and capable of generating complex traffic control diagrams quickly and efficiently. The traffic engineering area felt that while the software is powerful and easy-to-use, it is not necessarily superior to the CAD based software currently used for this purpose. The public relations personnel felt that this software would represent an improvement over their current methods of generating traffic control diagrams. One key difference between the two responses may be that the public affairs personnel had previous experience with CorelDraw, whereas the traffic engineering personnel did not. The public affairs personnel felt the software was a good investment and would recommend its purchase if the decision was theirs to make. They did comment that the learning curve could be reduced by more intuitive organization of the component files. Currently, images are organized by a terminology drawn from the Manual on Uniform Traffic Control Devices (MUTCD), a resource familiar to traffic engineers but not to public relations personnel.

   Only the basic functionality of the software was investigated. More sophisticated features are available in the package, such as overlaying traffic control diagrams on top of a site photograph, but the evaluation of these features was beyond the scope of this effort.

Conclusions

   The software is quite effective for generating traffic control diagrams, including complex diagrams. The Traffic Graphics Software is simple to use, although Corel Draw receives mixed reviews with respect to its learning curve. Because the software is capable of importing many CAD formats directly, elements that are normally found in the design plans do not have to be redrawn.

Recommendations

   This product is enthusiastically recommended for units that frequently need to create traffic control diagrams for dissemination to the public. For units where CAD is commonly used for this task, this product may still have significant benefit, depending on the extent and nature of the traffic control diagrams being created, and the specific package currently in use.