Abstract

Decision Support for Forestlands Operations
Track: Forestry, Wildlife, and Fisheries Management
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Timberlands operators use the concept of best management practices (BMP) to meet their business objectives (e.g.: managing costs, proving compliance, demonstrating certification, etc.). BMP is simply the use of a standardized activity for a specific situation.

Because of the number of situations that may require unique practices, the consistent application of BMP can be quite time consuming. For example, the BMP to regenerate a cutblock may include creating polygons, assigning contractors, budgeting and developing schedules for site-preparation, planting and tending activities. The activity specifications (e.g.: type of site prep) may vary with the combination of the soil type and slope classification for the cutblock.

With a decision support system, the management practices are encapsulated in a database environment. The decision support engine interprets the rules to produce candidate geodatabase objects, schedules and budgets. The forester can review these candidates and approve, modify or delete them as they see fit. Decision support systems combined with GIS technologies can significantly improve the productivity of the forester.

This paper provides a technical overview and demonstration of how we are able to overcome the BMP encapsulation and management challenges and how we integrated the decision support system with timberlands geodatabases.

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