

Séminaire conjoint FORAC et CIRRELT

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« Forest Tactical and Operational planning modelling approaches »

ABSTRACT:

Forest tactical and operational management planning (FTOP) typically addresses forest operations allocation and scheduling. It aims the optimization of a set of economic and ecologic goals and it is often constrained by long-term strategic plans. Specifically, it relates to all forest supply chain procurement stage actions such as harvesting, intermediate storage, transportation and wood reception. These actions are hierarchically planned within time frames that vary from monthly periods to days/minutes, with increasing level of detail required to reflect real-world operations. The high economical impact of the operational costs over the wood price at plant entrance fosters the development of innovative technologies and optimization models for planning and decision-making support. The classical optimization models, multicriteria methods, heuristics and its input/output information are often aggregated into Decision Support Systems (DSS) used by forest practitioners, hauliers or other logistic planners. The wide variety of such models and systems, tailored to specific users or companies requirements, addressing individual FTOP or focusing their integration in the scope of the overall forest products supply chain management, imposes the need for proper comparative analysis and knowledge structuring. This presentation provides a critical assessment of existing FTOP models. It starts by reviewing published case studies and proposing a classification framework of FTOP problems. Complete problem descriptions will be presented. It further reviews published solution methods and DSS and establishes recommended solution approaches for each FTOP problem. The advantages of the integration and synchronization among procurement stage actions, with other forest products supply chains stages (e.g. production, distribution, sales) and inter-relating the strategic, tactical and operational decision levels will also be addressed. Finally, novel research areas and open questions under FTOP will be discussed.

Le vendredi 7 mai 2010

14h00

Local 3510

Pavillon Adrien-Pouliot

Bienvenue à toutes et à tous !

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