

USE JAVA AND THE INTERNET TO MANAGE DATA AND PREDICT THE FUTURE OF FOREST STANDS

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Abstract—A Java based software package provides a user with Internet access the ability to store, summarize, and translate field collected data describing forest stands and to run simulations to assess possible future scenarios that include stand management and the effects of gypsy moth defoliation. The model interface is constructed as a Java applet that will run within a Java-compliant Internet world-wide-web browser, allowing a user from any computer that has Internet and web access to use these tools. The model user also has the ability to access data from a large collection of example stands that are available from a server-side database. If the user has a locally available

Java Virtual Machine (JVM), then it is possible to use a Java application version of these software programs that permits the local storage, access, and management of input and output data files generated through use of the program. Data from field plots entered through the user interface are summarized on a per acre basis and from these data, the user can directly obtain estimates of stocking, volume, and value, as well as stand structure and related habitat data summaries. Simulations permit the user to look at potential growth scenarios under hypothesized management actions.

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