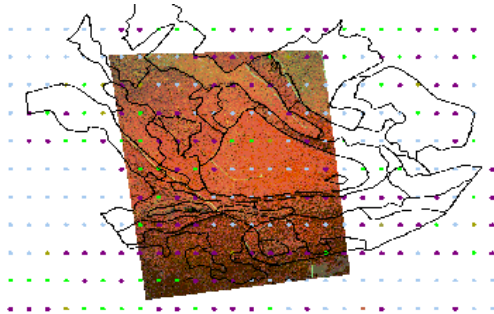


Forest Management GIS Services

Forecon, Inc.

Developed a forest management decision support system (DSS)

HGI developed a Forest Management Decision Support System that integrates industry standard growth models (TWIGS, SILVAH, OAKSIM, and FIBER) and valuation equations coupled with ArcInfo and Oracle databases. This system allows foresters to graphically create, update, query, and analyze forest inventory information, produce quarterly growth reports that meet financial reporting requirements, estimate future forest growth and stand values, track and optimize scheduling of field activities, and generate what-if scenarios that can be used to develop a forest stand's economic maturity critical path. The FMDSS was implemented using Visual Basic, Fortran, Oracle Reports, and PL/SQL and is deployed on the Windows NT operating system.



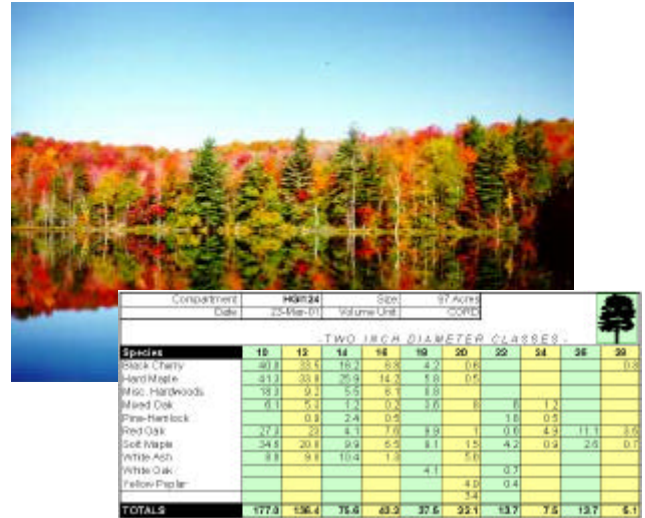
HGI developed a method of implementing automated stand delineation from traditional timber cruise information. Here, stand information is shown georeferenced onto a digital map image.

Implementation

HGI supports Forecon and its clients including one of the largest timber investment management organizations in the country.

HGI performed a GIS Needs Assessment for Forecon at its offices in Jamestown, NY and at Forecon's clients' offices. HGI personnel identified GIS needs for both firms and for each department within the two firms. HGI then diagrammed the flow of information between the firms and their departments. An implementation plan was then drafted and carried out.

HGI designed and implemented ArcInfo and Oracle databases that store pertinent information for the 175,000 acres comprising the sale in support of a



HGI's forest management decision support system creates reports from standing and stocking tables generated by industry-standard growth models.

\$215M timberland purchase from International Paper. HGI populated these databases and performed a rigorous QA/QC procedure on the data. This data was then used by Forecon and their client to provide valuation information as part of their fiduciary responsibility to their respective clients.

Project Highlights

- HGI systems incorporate existing data and data collection methods to achieve our client's goals. HGI can integrate almost any form of digital data into our system designs.
- Customized database development allows the greatest possible flexibility.
- For Forestry applications, both raster and vector data are used to create stand maps and standing and stocking tables.
- Customized GUI development gives each client the information they require while providing for future system expansion.