## FORSight Resources, LLC

World-class expertise for natural resources decision-making...

# **FORSim PNW**

#### What is it?

FORSim is a suite of regional growth and yield applications designed to put the functionality of powerful growth models at the fingertips of inventory foresters and biometricians. FOR-Sim PNW was developed by FORSight Resources at the request of multiple ORGANON users who expressed the need for a tool to evaluate stand-level silvicultural options. FORSim PNW combines a user-friendly, Excel-based interface with current versions of the popular ORGANON growth engine.

ORGANON is a stand simulator developed at Oregon State University. ORGANON is a distance-independent, individual tree model based on empirical relationships and validated for conifer and some mixed species stands up to 100 years of age. There are currently three variants of the ORGANON growth engine: (1) Southwest Oregon (SWO), (2) Northwest Oregon (NWO), and (3) Stand Management Cooperative (SMC).

FORSim PNW 2008 has the ability to call three versions of the ORGANON growth engine: (1) version 8.1, (2) a custom modification of version 8.1 incorporating the western hemlock growth functions of the NWO variant into the SMC variant, and (3) the recently-released version 8.2. This functionality allows all users of FORSim PNW or ORGANON to make a



seamless transition to the newest release of FORSim PNW. The FORSim PNW user interface simplifies ORGANON usage, reducing parameter input to simple drop-down menus and buttons. INP-format input file creation is no longer necessary and tree list error-checking is integrated into the program. Results are provided in both tabular and graphical formats. Graphical outputs include trees/acre, quadratic mean DBH, BA/acre, relative density, stand density index, log Dq, ft3/acre, ft3/acre growth, bdft/acre, and bdft/acre growth.

Silvicultural treatments can be applied at any point during stand simulation through the use of menu and text box inputs. The available list of treatments have been further extended with the release of version 2008.

The list of treatments now includes:

• Thinning (6 types)

Residual basal area target Residual trees/acre target Stand density target Curtis relative density target Diameter limit cutting Species/user-defined code

- Fertilization
- Pruning
- Incorporation of in-growth

In response to requests from users, merchandizing has been incorporated into version 2008. The National Volume Estimator Library (NVEL) is utilized to merchandize grown tree lists and then the merchandized logs are then classified into products. Users provide their own product specifications, including minimum scaling diameter, minimum log length, and minimum volume. Outputs now include stand and stock tables by product, log stock tables by product, and standing and harvest volumes by product.

New users will find FORSim PNW 2008 provides a userfriendly interface for managers and biometricians wishing to run the ORGANON growth engine. Existing users will appreciate the following new features in 2008:

- ✓ Updated interface
- ✓ Expanded DLL support
- $\checkmark$  New thinning options
- Merchandizing capability.

Please contact FORSight for additional information or to discuss licensing and maintenance options.

### **Custom Programming**

FORSight also provides customized solutions for clients wishing to incorporate enhanced functionality into their current growth models or integrate growth and harvest planning functionality into their existing information systems.

Contact us today to learn how FORSim PNW can help you evaluate silvicultural alternatives and make better silvicultural decisions.

#### Locations

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