Scanner Scaling

What is scanner scaling?

- Scanners are electronic devices that use laser technology.
- The information gathered by such devices is currently being used to create and regulate mill cut programs and provide volume data for inventory control purposes.
- Scanners determine diameters by performing a two axis scan of the diameter at many points along the length of a log.
- The length is determined by a pulse encoder that counts pulses for the time the log is in the scanner field.
- The result of this collected data is an electronic image which shows diameter, length and many other external characteristics such as sweep, kinks etc.

Why change? Why scanner scaling?

- We are moving into a changing profile of timber on the coast.
- Current DLS methods of scaling are based on determining value from timber that is dynamic in value.
- Some second growth logs do not require a scalers eye to sort to mill specifications.
- DLS costs continue to increase as average volume per log goes down and piece counts go up.
- Efficiencies, by way of reduced handling, are the key to reducing costs.
- Utilize technology that exists and is proven to be reliable.
  - Mill site scanners
  - Processors in the woodlands.

How will the mill get the right log?

- Focus on second growth operations.
- Utilize the abilities of processors to sort logs by diameter.
- Provide clear direction to processor operators as to the specifications of the log to be sorted out.
- Check on a regular bases for accuracy of the sorting.
- Presorting is not new to us. The weight scale program at AVA uses the same process of presorting.

Sample presorting card		
Hemlock Gang No top rot Minimal Flutting Long butt to remove flutting	**16.6m 12.5m 8.3m 4.2m** 11.4m 7.4m 6.3m 4.2m **Presort in the bush** **Est. Volume 4700m³**	**Prime lengths** Secondary lengths **Top dia 8" to 14"** **Max butt dia 18"**
Hemlock Standard Long butt to remove flutting	**16.6m 12.5m 8.3m 4.2m** **Presort in the bush** **Est. Volume 1100m³**	**Top dia 14"+**
Camp Run This will be made up of all other sorts	**To be stick scaled at the DLS**	

How will the mill get the right log…cont

- Currently we presort truck loads for weight scaling.
  - Booms are made up of 100% presorted logs.
  - Booms are towed to Avalon DLS for weight scaling.
  - After weighing, the loads are put back into the water and re-boomed.
- New process
  - At a camp level the process will remain the same.
  - The booms will be towed direct to the mill.
  - There will be no re-booming or extra handling.

What will happen at the mill?

- An unscaled boom will be moved into position for dewatering.
- Procedures will be in place to satisfy bundle or boom integrity.
  - This procedure will include:
    - Identifying the correct block and timber mark information.
    - Identifying the boom number.
    - Cross referencing the boom number with the RCOTT01.
- For each boom there will be a procedure in place to ensure that all booms will be scaled in their entirety.
- Data collected will be transferred to the MOFR directly from the mill in an XML format.

Check scaling

- A new way of thinking when it comes to computers scaling logs.
- Currently check scales test human action.
- Check scales reveal a scalers knowledge, ability and effort.
- A scanner has no emotion or production pressure.
- Accuracy does not vary from log to log.
- Computers warn of electronic failure or malfunction.
- Volume data produced by scanning is achieved by a formula in a computer.
- The scanner is consistent.
- Check scaling a load would no longer be required.
- A check scale would consist of
  - Checking that the equipment is functioning correctly
  - Checking that the formula used to convert input data to volume is correct.

Scanner accuracy

- It is commonly agreed that scanners are accurate for determining gross volumes.
  - Lengths are accurate to ½ inch over 60ft.
  - Diameters are accurate to approximately 1/8”
- The reality is scaling in the units currently accepted (rads) create less accurate volume results than scaling by scanner.
- A log could be scanned 100 times and the result each time would be extremely consistent.

Points of discussion

- Scanners are unable to determine grade.
- Scanners are unable to make volume deductions for holes or rot.
- Bundle integrity might be difficult to maintain.
- Consider boom integrity instead of bundle integrity.
- A change of policy regarding scale method would be required.

Moving forward

- We must continue to grow and adapt to our changing industry.
- Scanner scaling would create significant cost savings on low value timber.
- Cost saving would result in opportunities to harvest more lower value timber.
- Scanner scaling is more accurate than conventional scaling on small defect free timber
- We have the technology to provide better results.