

## Providing integrated forest management and modelling software

June 2010

Where has the year gone? It's hard to believe we are nearly halfway through already. And at ATLAS we have lots going on as usual to keep us busy for the next half of 2010.

There has been good news for science in the past month. The current Government sees science and innovation as the main drivers of New Zealand's 21<sup>st</sup> century economy, and have backed their view by providing new funding in the 2010 Budget to directly support business research and development. This is in addition to the Government adopting the CRI Taskforce recommendations. It's an exciting time to be involved with science.

ATLAS has had more internal changes since the last newsletter. Larry Goyon was unable to maintain his role in ATLAS since the rest of his family was based in Auckland and the commuting didn't work out very well. In the meantime, Praneita Narayan (front row, centre on photo) has joined us in Jeremy Snook's previous role as Software Support. Praneita has good forestry experience and an interest in technology. Originally from Fiji, Praneita has recently moved up from Wellington. You can learn more about her inside this issue.

Further team changes are afoot, as we are currently recruiting a Test Analyst. This is a new position focussed on improving the quality of our products. The Test Analyst will extend ATLAS's testing strategy, create more in-depth test plans for our products, and coordinate the testing processes for our releases.

The only constant in technology is change, so we have been busy up-skilling our team. Jeremy recently attended a business analysis conference in Auckland, and some of our developers have been attending various courses to bring them up to speed with Microsoft tools and Information Architecture. This training will help us improve the usability of our products.

Finally, make sure you put the Forestry GIS Conference in your calendar. More details inside.

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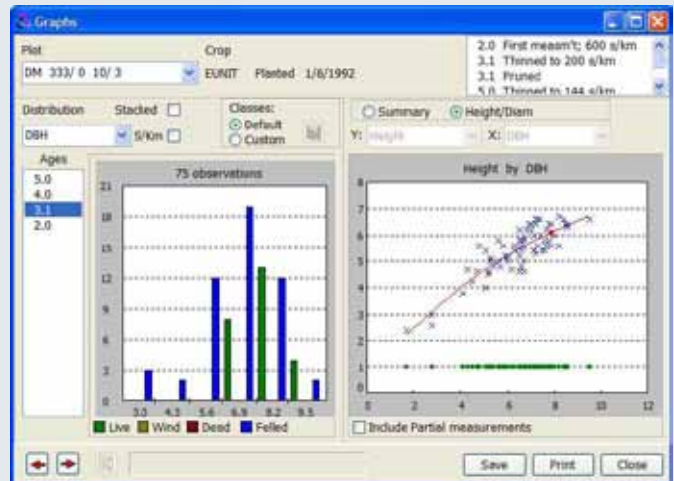
# GeoMaster Update

The focus areas for the GeoMaster team have largely followed the same tracks outlined in the previous newsletter. Luke has continued with development of a web-based landuse decision support tool, and Wayne has been progressing with SprayAdvisor and the spray droplet deposition model. The PSP (Permanent Sample Plot) system revamp is almost complete, for which the most significant component has been migrating the data capture tool from DOS to Windows, as an extension of FieldMan. Another new feature that will be of interest to some is the ability to extract individual tree data to csv, including estimated height and volume.

As usual, support requests for GeoMaster products continue unabated, and numerous fixes and minor enhancements have been implemented in the v1.14.2 update scheduled for release by the end of June.

Maintaining temporal integrity when remapping and supporting site-prep operations during the period between harvest and planting has often been an area of difficulty within GeoMaster. For v1.15 we are looking at relaxing some of the temporal constraints so that events can be associated with patches outside the lifetime of the patch. For example, being able to associate an operation that happened in

December with a patch that was created from a merge the following February after remapping. In particular, this would allow planned stands to be converted to actual stands with historical events being assigned to newly defined landbank patches.



DBH distribution and height curve for a PSP

## Forestry GIS Conference

On 6 October Scion, supported by ATLAS and other partners, is holding a free conference to provide an update on where GIS (geographical information systems) is heading in the forestry sector.

International and domestic GIS professionals confirmed to speak include Peter Eredics from ESRI, Cris Brack from Australian National University, currently resident at Waiariki Institute of Technology, Kevin Sweeny NZ's Geospatial Custodian, and Harley Prowse from Geographic Business Solutions. Topics will cover current trends, future directions and innovative uses of GIS. Registrations will open soon so keep an eye on the events calendar of the Scion website: [www.scionresearch.com](http://www.scionresearch.com), or contact Bronwyn Douglas on 07 343 5624 to register your interest.

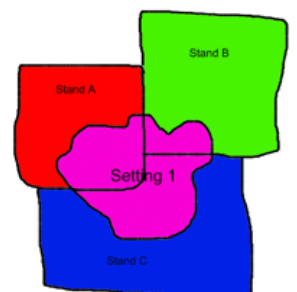
The ATLAS GeoMaster User Group meeting will follow this conference on Thursday 7 October.



## Harvest Scheduler 1.4 Release

A new version of Harvest Scheduler is currently being tested, which has functionality that allows setting-based simulations to generate stand-based area depletion reports. Production and area depletion are still modelled from harvest settings, but having stand-based area depletion estimates is useful for long and medium-term operational planning where stands are the most commonly used management unit.

Visually, this feature is trying to model the daily depletion of area from each of the stands A, B and C given the harvesting plan for Setting 1 (See the figure to the right). The estimated area harvested from each stand is proportional to the area contributed by that stand to the setting.



As part of this enhancement, the on-going harvest can be tracked from GeoMaster/Harvest Manager so that the current NSA (Net Stocked Area) can be refreshed and the remaining harvest can be simulated to produce the stand-based area depletion report.

# Changing Forecaster's ownership to FFR



Over the last six months Scion/ATLAS and Future Forests Research (FFR) have been taking steps to transfer the ownership of Forecaster to FFR on 1 July 2010. Scion/ATLAS and FFR have also created a three year business plan for the ongoing enhancement, support and maintenance of Forecaster. Once the Scion and FFR Boards have approved the agreement, FFR will

release a document showing how Forecaster will be managed, the service level agreement for ongoing enhancements, support and maintenance, and the new fee structure for FFR members.

Both Scion and FFR expect this new arrangement to bring science and industry closer, with industry guiding how the science should be delivered to give the most value. Both ATLAS and FFR have been working hard to improve the usability of Forecaster. This is starting to have an impact, illustrated by the large number of people who attended the Forecaster training days and user group meetings in Rotorua and Christchurch.



Praneita's POSTINGS

**BULA!** Allow me to introduce myself - my name is Praneita Narayan and I have recently joined the ATLAS team in a Software Support role.


Being a forester by profession (with a Bachelor in Forestry Science from University of Canterbury and Masters in International Forestry from Georg-August University in Germany), and having moved from Fiji to NZ late last year (hence the BULA greeting), I couldn't have asked for a better place to start off my NZ work experience. Surrounded by experienced software developers, dedicated foresters and leading scientists and researchers, I hope to expand my forestry knowledge and in return contribute to ATLAS's vision of delivering innovative science-based software solutions to its clients.

As I delve into this all-new world of forestry software, I also look forward to getting to know and meet some of you at ATLAS's upcoming events!

#### And now for the usual helpful tip from the Software Support crew...

Firstly, to Forecaster users who happen to come across those nasty errors during simulation:



By clicking on the  button which follows the error message, a dialog box will appear containing a "Details" button. Clicking on the Details button will provide a description of the problem (called a "stack trace"), which gives our developers a better idea of why the simulation is failing. Just copy and paste the stack trace into an email and send it to us at:

software.support@atlastech.co.nz.

Secondly, we've recently had a number of clients experience problems with their licences becoming invalid. If you are running your licence service on a virtual machine under VMware, be aware that upgrading your version of VMware can cause the licences to become invalid. If this occurs, simply email us the reference codes for your ATLAS products and we will send you a new set of licence keys.

Cheers,  
Praneita

## Forecaster user Group Meeting

The ATLAS team have recently been very busy preparing and hosting training courses and user group meetings for Forecaster in both Christchurch and Rotorua. These were run as part of the drive from Future Forests Research (FFR) to increase uptake of this tool, which is a key vehicle for delivering new science directly to industry. For companies interested in giving Forecaster a try, FFR are currently offering a 3 month free trial for members of their Radiata theme.

In total 29 people attended the training courses, and feedback received so far has been very positive. If you were unable to attend, but would be interested in future courses, please contact us.

During the Forecaster User Group Meetings progress was reported on recent developments in Forecaster, including:

- » Enhancements to the spatial interface
- » Yield Generator (simplified interface targeted at users wanting to produce yield tables)
- » C-Change carbon sequestration model
- » MOE (wood stiffness) model developed by Mike Watt
- » The upcoming Practical Advice decision support module

The proposed work programme for 2010-11 under the Intensive Forests Systems programme was also presented. While this is yet to be fully approved by the FFR board, the plans currently include economic analysis, a silvi scheduler interface, tech transfer papers, and modeling of long-term trends and variability in forest product prices.

Participants also had the opportunity to have a hands-on look at a pre-release version of VMAN, the weed management decision support system.

For those interested, presentations from the UGM are available from the ATLAS website.



# VMAN Update

In association with FFR's Radiata Management theme, ATLAS is involved in the development of VMAN, a weed management decision support tool. VMAN has been used as a research tool for a number of years, and we are currently preparing it for deployment to members of FFR's Radiata theme by the end of June.

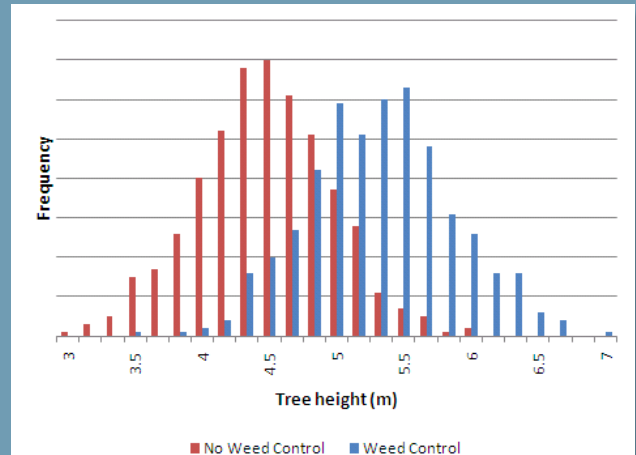
VMAN can model light and water competition between weeds and trees, and the subsequent stunting of tree height and diameter growth. A selection of different weed species and herbicides are currently available within the system (based on previous competition and dose response trials), and this will soon be expanded further.

There are several reasons why a forest manager might want to model weed competition and the impacts of herbicide application:

- » To ensure best value for money from undertaking these costly operations;
- » To demonstrate the effects (on tree growth and NPV) of reducing herbicide doses (because forest managers are encouraged to reduce chemical usage under FSC requirements);
- » To examine the impact of switching to a less effective herbicide - given that there are current attempts to ban Valzine, one of the most common (and effective) forestry herbicides.

Once analysis in VMAN is complete, a simulated stem list can be exported to Forecaster where the impacts of herbicide use can be modelled in terms of the effect on stand volume and log product out-turn at the end of the rotation.

If you would like to know more about VMAN, please contact us at [software.support@atlastech.co.nz](mailto:software.support@atlastech.co.nz)



Height distributions of trees on the same theoretical site, where trees are under competition from buddleia. One scenario has no weed control, while the other is treated with 20 L/ha of Valzine.

## TO LEARN MORE ABOUT ATLAS PRODUCTS

visit [www.atlastech.co.nz](http://www.atlastech.co.nz)

### Forestry information management and decision making support tools, to maximise the value of your business:

- Forest and land information (ATLAS GeoMaster®)
- Forest resource assessment (ATLAS Cruiser®)
- Forest management DSS (ATLAS Forecaster®)
- Quality assurance (ATLAS SilviQC)
- Forest estate planning (FOLPI)
- Data collection (ATLAS FieldMan)
- Harvest planning (ATLAS Harvest Manager)
- Harvest scheduling and log allocation (ATLAS Harvest Scheduler/ATLAS Market Supply)
- Inventory design (ATLAS Assessment Planner)
- Map production (ATLAS GeoMapper)
- Yield Table Management and Manipulation (ATLAS Yield Table Manager)



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