

TREESTOCK BOX TRACKING

Presenter: Andrew Taylor

Meeting Date: 7th October 2022



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BACKGROUND

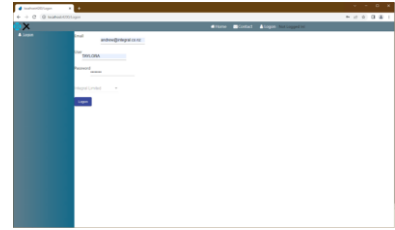
- **What is the problem to solve?**
 - **Reduce Loss of Nursery Assets**
 - Increase no of use cycles of boxes (pallets, pods or bags)
 - Show visibility of location of assets (nursery, storage, transit, forest)
 - Show current asset condition (stocked, empty, archived)
 - **Treestock Traceability**
 - Give Biosecurity incursion management support
 - Reduce Treestock Morbidity reduction
 - Aid Dispute Resolution
 - **Planting operational visibility for Forest Managers**
 - Monitor environmental exposure of trees pre-planting
 - Tighter visibility of stocks received vs consumed (planted)

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Approach

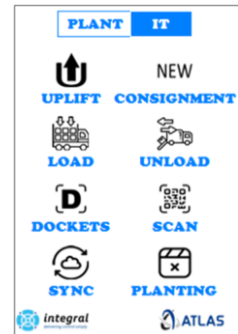
■ Browser Application

- Online Realtime Database access
- Larger Display for Reports and Inquiries
- Office based functionality



■ Mobile Application

- Offline with Synchronisation to Database
- High percentage certified devices by market share
- Android and iOS
- Field based functionality

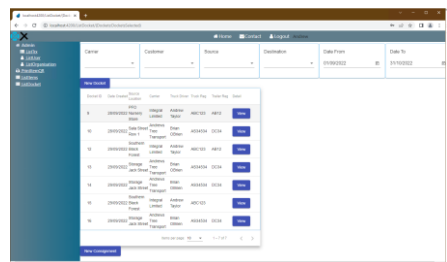


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Approach

■ Browser Application Functionality

- Label Boxes – QR codes for digital identification
 - Print/Reprint Labels
- Set up Dockets for transportation
 - Docket per Truck/Trailer combination
 - Multiple Consignments for Docket by Customer/Destination
- Reports and Online inquiries
 - Nursery/Forest/Transport managers



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Approach

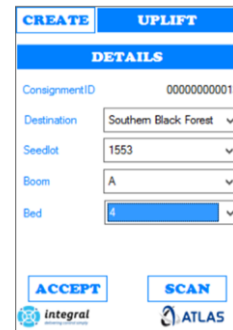
■ Mobile Application Functionality

■ Scan Boxes

- up-lift
- in/out of storage/nursery
- On/off Transport
- Planted empty boxes
- Returned/expired/damaged
- Status Inquiry

■ Off-line

- Synchronisation when network available



CREATE	UPLIFT
DETAILS	
ConsignmentID	000000000013
Destination	Southern Black Forest
Seedlot	1553
Boom	A
Bed	4
ACCEPT	SCAN
integral	ATLAS

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PROJECT HIGHLIGHTS

■ First - Lowlights Acknowledged

- Staff availability
- Technology upgrade and upskilling
- Missed 2022 Planting Season to trial full cycle prototype



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PROJECT HIGHLIGHTS

■ Highlights Achieved

- Project Planning
 - Business Requirements, Functional Specification, Roadmap
- Prototype Development
 - Label Printing
 - Box Label Scanning and tracking – Asset Life cycle: Uplift, transport, planting
 - Docket/Consignment – Creation and Inquiry
 - Master Data Management and Lookup
- Nursery Walk through
 - Compare proto-type methods against sample nursery processes

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WHERE TO FROM HERE?

■ Complete and deliver Prototype to participating nurseries

- Web App, October 2022
 - Finalise Website theme and apply to functional screens
 - Complete Docket Creation
 - Create public website environment
- Mobile App, October 2022
 - Create public iOS Deployment environment

■ Complete and Deploy full functioning application

- Development, (As per functional spec) November 2022-February 2023
- User Testing, March-April 2023
- Publication, May 2023
- Marketing and Adoption, May-June 2023

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Implications for industry

- **Nurseries purchase more boxes than needed**
 - **Shorten the time boxes are away from nursey**
 - Recover more boxes sooner as location and status is monitored
 - lower box numbers kept at nursery as confidence in recovery increased
 - Reduce chances of boxes accidentally ending up at wrong nursery
 - **Less damages**
 - Shorten exposure to environmental, pest and accidental damage



Implications for industry

- **Tracking has potential to**
 - **Reduce Tree Morbidity**
 - Highlight when trees are exposed too long to harsh conditions
 - Improve management and timeliness of trees purchased, delivered and planted
 - **Dispute Resolution**
 - Give a clear chain of custody record for disputes and claims
- **Add consistent Reporting within Industry**
 - Biosecurity Incursion Levy data extract direct from application

INVOLVEMENT FROM INDUSTRY PARTNERS

- **Current Support Needed**
 - Continued to provide feedback during development phase
 - Help benefits and justification for industry adoption
- **Future Support**
 - Be Case Study's for publication on our and industry websites
 - Be references, advocates for future potential users
 - Adopt the application and provide continuous feedback

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INVOLVEMENT FROM INDUSTRY PARTNERS

- **Acknowledge support from industry partners to date**
 - **Requirements Design Partners**
 - Peter Harrington, Rotorua Forest Nursery
 - Jono Lane, Arborgen Nurseries (formerly)
 - Kevin Haine, PF Olsen Nursery
 - **Application Feedback**
 - Kevin Haine, PF Olsen Nursery
 - **Industry Funding and Project Support**
 - Russell Dale (FGR)
 - Brian Richardson (FGR)
 - Claire Stewart (Scion)



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Precision Silviculture Partnership

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Ministry for Primary Industries
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