

A DIGITAL TWIN OF YOUR STOCKYARD

StacksOn™ is a grade tracking, prediction, and optimisation system for bulk material stockyards.

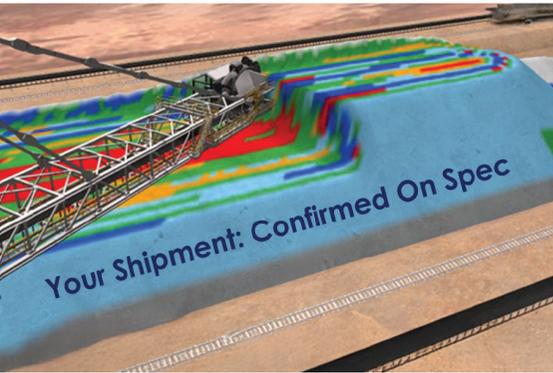
It tracks material being added to and reclaimed from stockpiles to maintain a 3D model of material in the stockyard.

Material properties such as material composition, origin, stacked time are tracked and can be interrogated to ensure maximum operational and financial gain.

BENEFITS

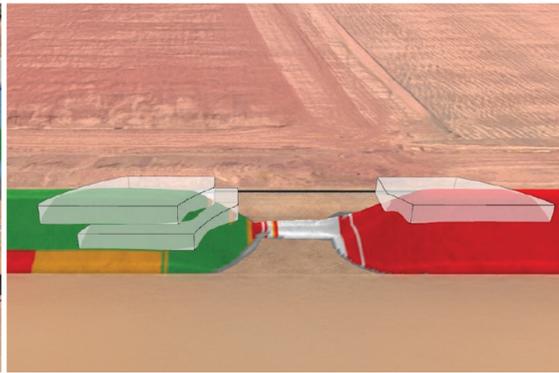
Prevent Off-Spec Shipments

Predict and address off-spec shipments before they are filled.



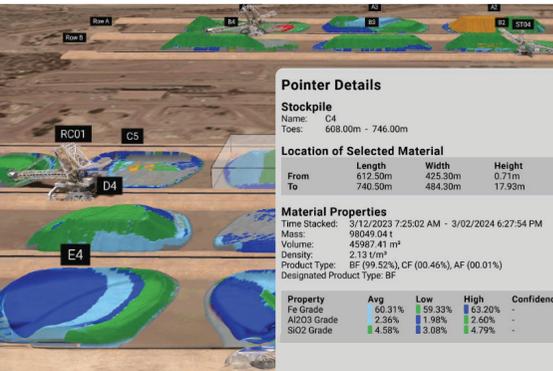
Reduce Grade Giveaway

Increased confidence reduces the safety margins applied to shipped grade targets. Transform off-spec product by blending it into batches that still meet grade targets.



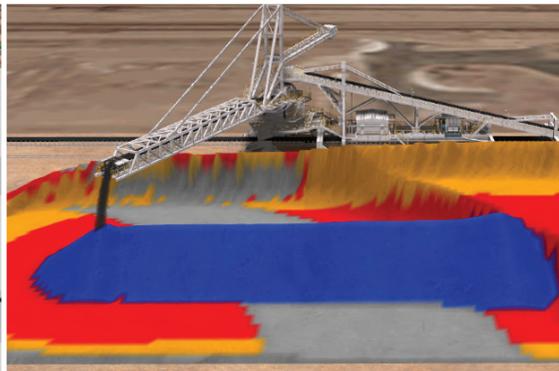
Accurate Inventory Management

Accurate tonnage and grade information at your fingertips, in near-real time, informs staff how to best manage your stockyard.



Reduce Downtime

Stack over part reclaimed piles and extend full ones. StacksOn will track your product no matter how you run your yard, so you can keep your stackers stacking and your reclaimers reclaiming.



Pointer Details

Stockpile

Name: C4
Tees: 608.00m - 746.00m

Location of Selected Material

From	Length	Width	Height
To	612.50m	425.30m	0.71m
	740.50m	484.30m	17.93m

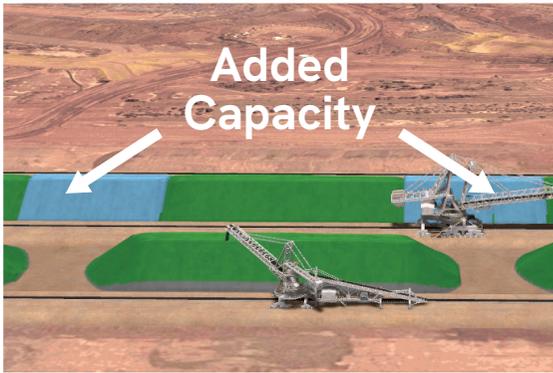
Material Properties

Time Stacked: 3/12/2023 7:25:02 AM - 3/02/2024 6:27:54 PM
Mass: 98049.04 t
Volume: 45987.41 m³
Density: 2.13 t/m³
Product Type: BF (99.52%), CF (00.46%), AF (00.01%)
Designated Product Type: BF

Property	Avg	Low	High	Confidence
Fe Grade	60.31%	59.33%	63.20%	-
Al2O3 Grade	2.36%	1.98%	2.62%	-
SiO2 Grade	4.58%	3.08%	4.79%	-

Increase Yard Capacity

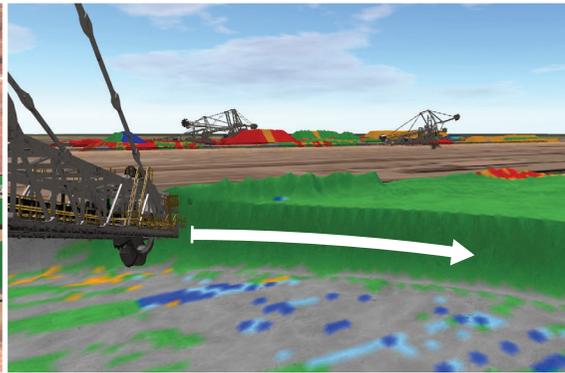
Track material within continuous stockpiles in near real-time and understand how grade will change before implementation with accurate studies.



Increase Yard Throughput

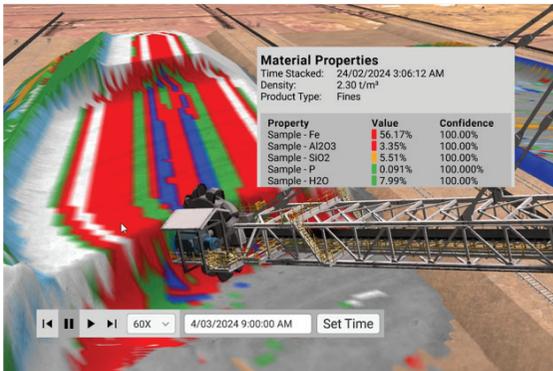
Limit unnecessary relocations mid shipment.

Optimise your stockyard with confidence.



Enhanced Root Cause Analysis

Use historical playback to quickly investigate anti-collision interactions, off-spec shipments, over/under stacking, and air digging events.



Improved Team Communication

Communicate issues clearly across all team members with easily understood imagery.



FEATURES

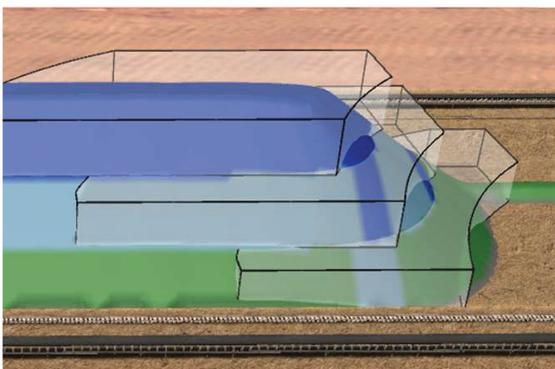
Accurate

Accurate modelling of product location, tonnages, and analyte distribution.



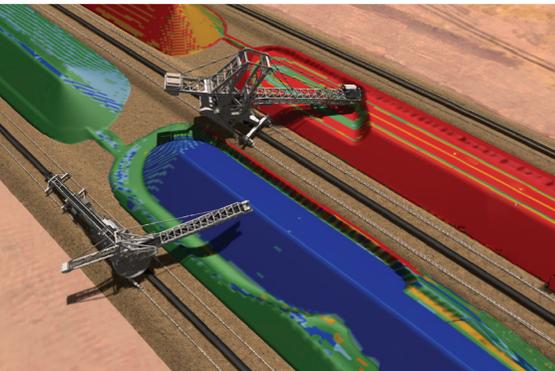
Predictive

Predict shipped grade before the material is reclaimed and make adjustments as required.



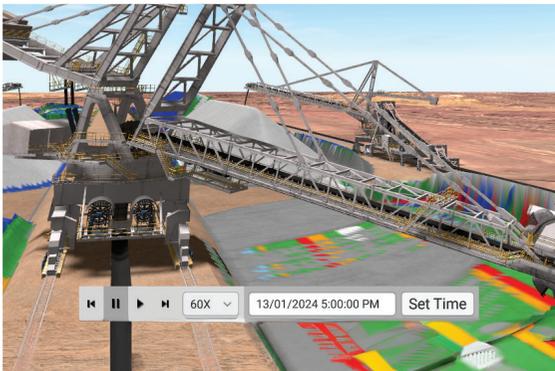
Intuitive

Realistic visualisation and intuitive controls increases operational awareness and reduces the learning curve for staff.



Historical Playback

Go back in time to replay an event or incident with full use of all StacksOn features.



Flexible

StacksOn can track any number of different material properties into and out of the stockyard including product type, residency time, grade and anything else you can come up with.

Informative

Used in production as the “gold standard” for reclaimable stockpile tonnage and the “best layer” of stockyard and reclaimed grade information.

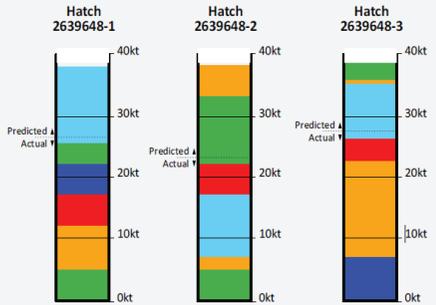
Location of Selected Material

Point	Length	Width	Height
	816.00m	36.00m	11.72m

Material Properties

Time Stacked: 28/02/2024 12:16:28 PM
Density: 2.26 t/m³
Product Type: Fines

Property	Value	Confidence
Sample - Fe	53.83%	100.00%
Sample - Al2O3	4.09%	100.00%
Sample - SiO2	5.54%	100.00%
Sample - P	0.136%	100.000%
Sample - H2O	0.24%	100.00%



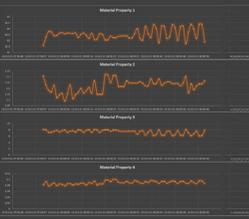
Communicative

StacksOn publishes stockpiled and shipped information to external systems, can be interrogated via an API, and allows users to freely export and use its model data.

Configurable

StacksOn is fully configurable and can be updated by the customer. Custom JavaScript logic is supported.

Exports reclaimed material properties in real time



SERVICES

StacksOn provides value in multiple phases of a project's timeline.

Design

StacksOn Study

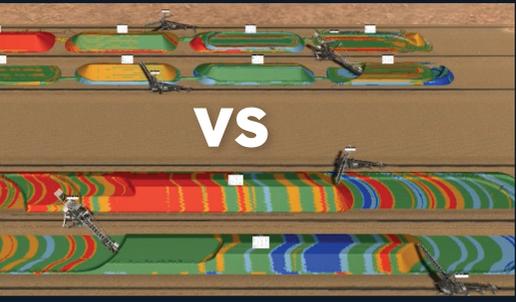
Testing

StacksOn Virtual Commissioning

Production

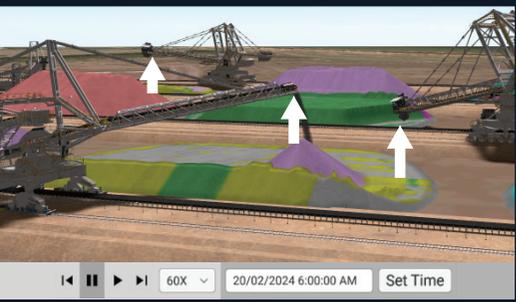
StacksOn Live

StacksOn Study



- ✦ Directly compare various stockyard methodologies (i.e. discrete vs. continuous)
- ✦ Prove effectiveness before you commit to a strategy
- ✦ Baseline results against current operations (if applicable)
- ✦ Once off cost - Can be done offline
- ✦ Compare stockpiled and shipped grade, stockyard capacity, yard flexibility and reclaim rates
- ✦ Visualise and analyse the entire study within a interactive 3D environment

StacksOn Virtual Commissioning



- ✦ Test stockyard automation changes within a digital twin of your stockyard
- ✦ Proves real world feedback to your test bench
- ✦ Visualise, record and replay testing sessions
- ✦ Limit production delays
- ✦ Train staff before deployment with realistic videos of operational changes

StacksOn Live



- ◆ Roll out StacksOn to your site
- ◆ Prevent off-spec shipments
- ◆ Reduce grade giveaway
- ◆ Improve operational decision making and stockyard efficiency



Our team consists of experienced Software and Control System Engineers with hands on experience programming stockyard control systems and robust next generation applications. The StacksOn™ team is known for our responsiveness to client enhancement and integration requests to better meet their needs.

Verbrec is a leading engineering, asset management, infrastructure, training, and mining technology services provider, operating across the entire asset life cycle. Our experienced team is recognised for its responsiveness and agility.

We operate across multiple regions, including Australia, New Zealand, PNG, and the Pacific Islands, executing projects for organisations of all sizes.

Verbrec is an ASX-listed company (ASX: VBC).

StacksOn™ is driving savings worth millions. Prevent off-spec shipments & increase yard throughput.



Contact us

📍 Level 5, 93-95 William Street
Perth WA 6000

☎ +61 8 6220 2000

stackson.com