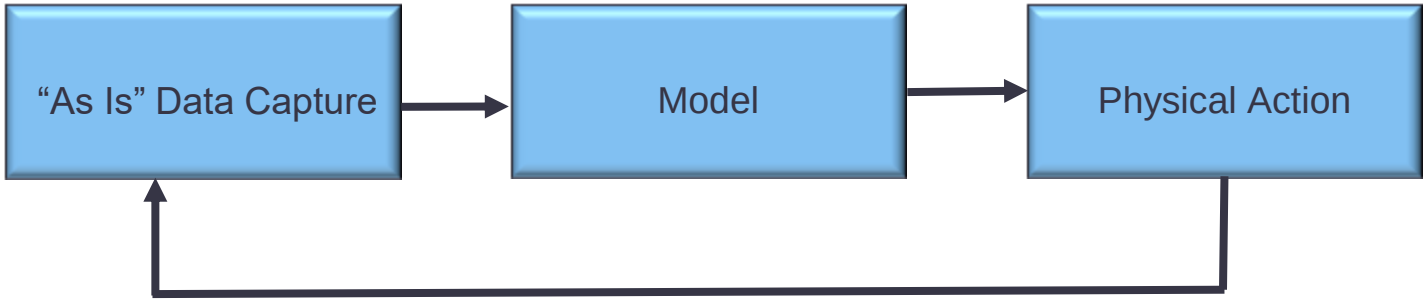
Geospatial and the convergence of the physical and digital worlds

Steve Berglund, CEO

Spatial data is being deeply integrated into real time model-centric solutions

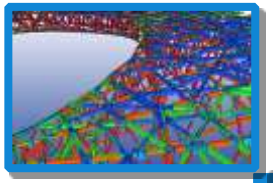


Enablers

- Spatial precision
- Connectivity
- Data access

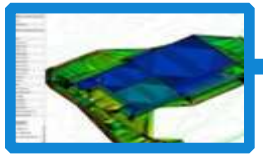
Spatial data is a vital element in work flow transformation

Construction



3D model at anchor bolt level detail drives pinpoint construction accuracy during fabrication and construction

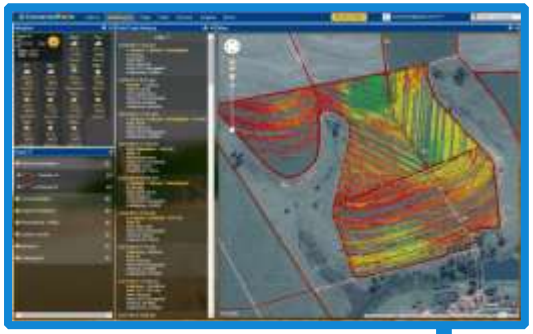
Construction verification against the model



3D design model imported to the machine control and guidance equipment in the field

Progress monitoring enables schedule optimization

Agriculture



Real-time field conditions update and inform optimal farm management plan

Farm/crop management plans flawlessly executed in the field

Transportation

Real time road, vehicle, and driver conditions aligned, managed and optimized to meet customer needs

Trimble

Connected Construction - eliminating disconnects

Between Stakeholders

Owner ⇔ AE ⇔ GC ⇔ Sub-Contractors

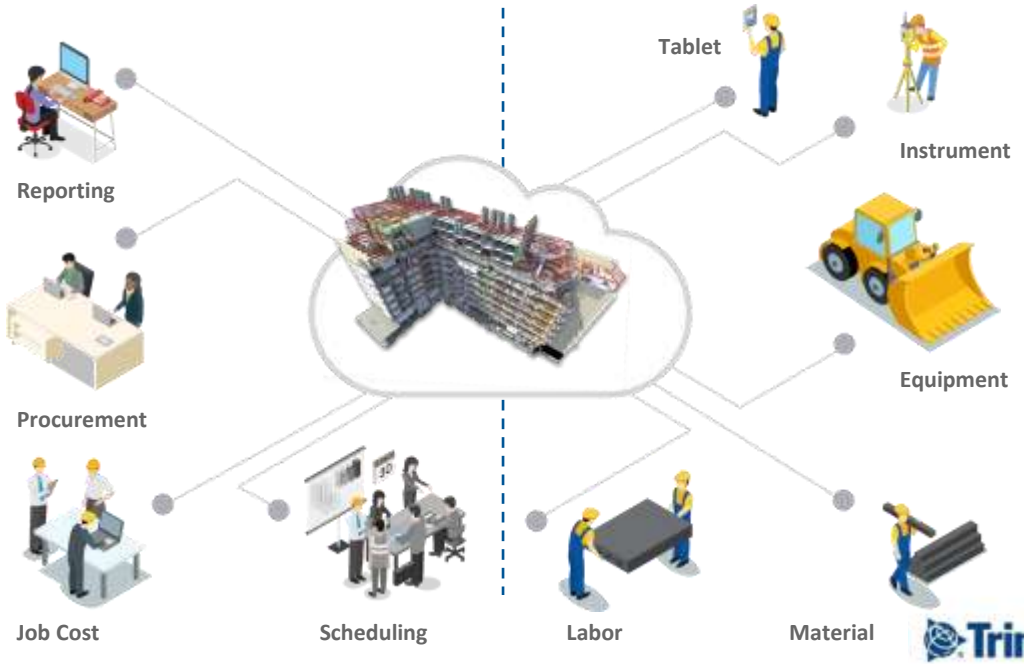
- Project Capital Program Management
- Project Document and Contracts Management
- Production Schedule, Work Order Management and As-Build QA

In the Office

Business ⇔ Project/Team ⇔ Field
Between departments
BPMs ⇔ Distributors ⇔ Contractors

In the Field

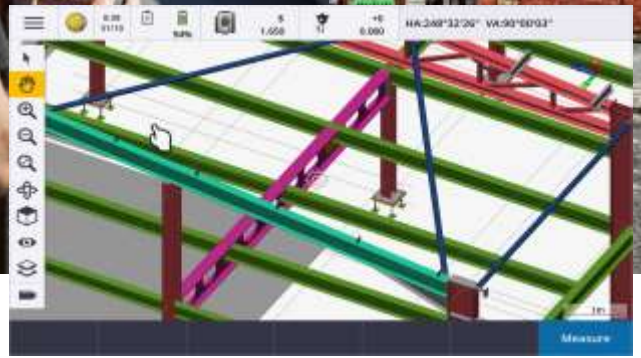
Scope ⇔ Actual ⇔ Handover
Labor ⇔ Equip ⇔ Materials
Models / Production vs Documents



The Constructible Model is enabled by precision spatial data

Digital data supports the <u>entire lifecycle</u>

- Pre-construction
- Site layout
- Post-construction



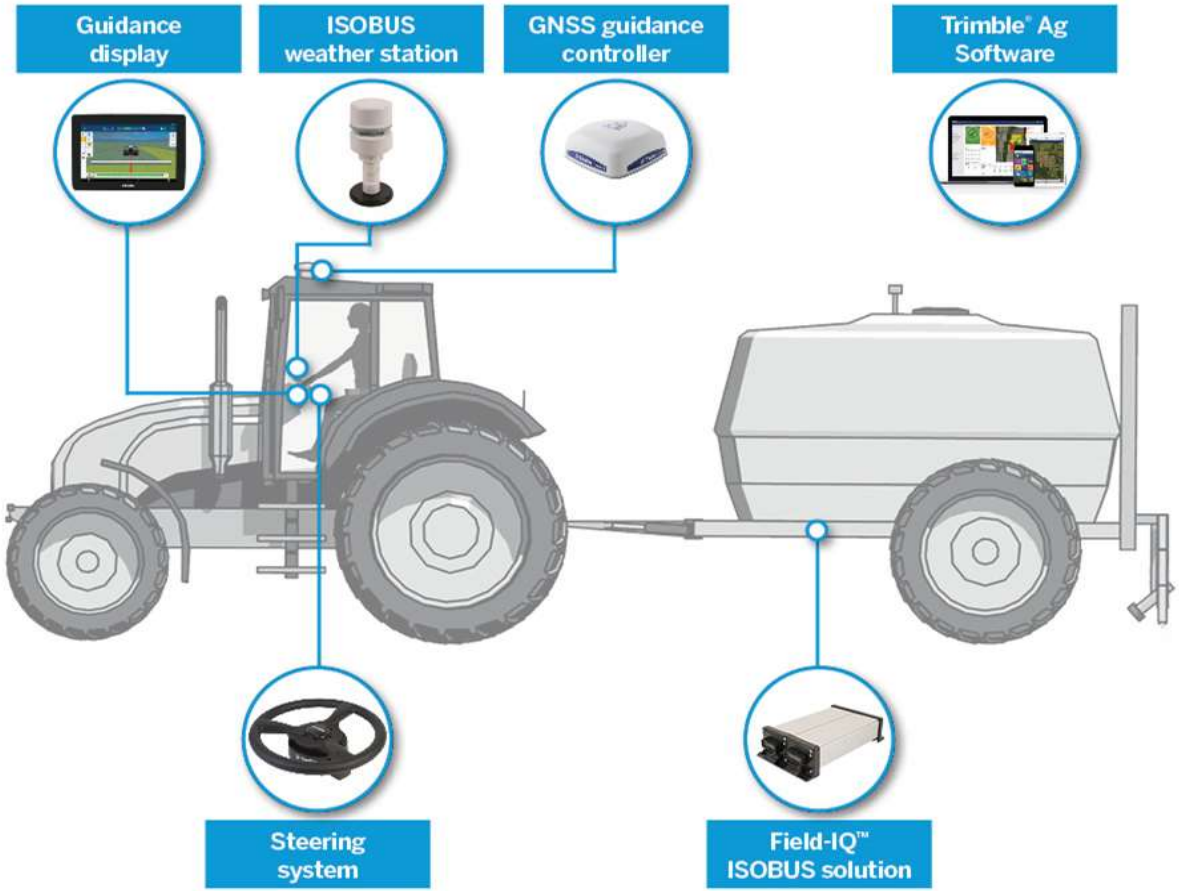
The integration of the digital and physical worlds enable enables physical actions to be fully integrated with the model

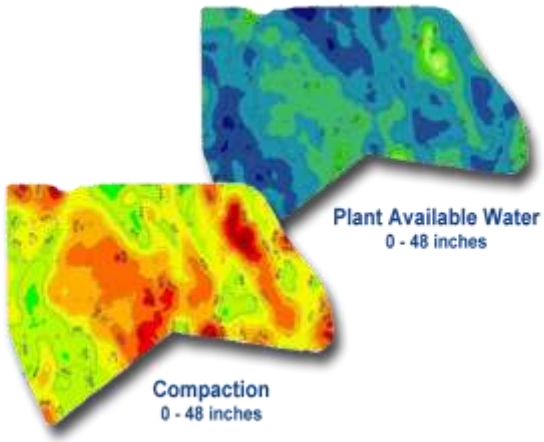
The integration of the digital and physical worlds enable enables physical actions to be fully integrated into the model context

Precision maps and geospatial models are enabling significant progress on the path to autonomy

Radical agricultural improvements are enabled by precise position, connectivity, and data access

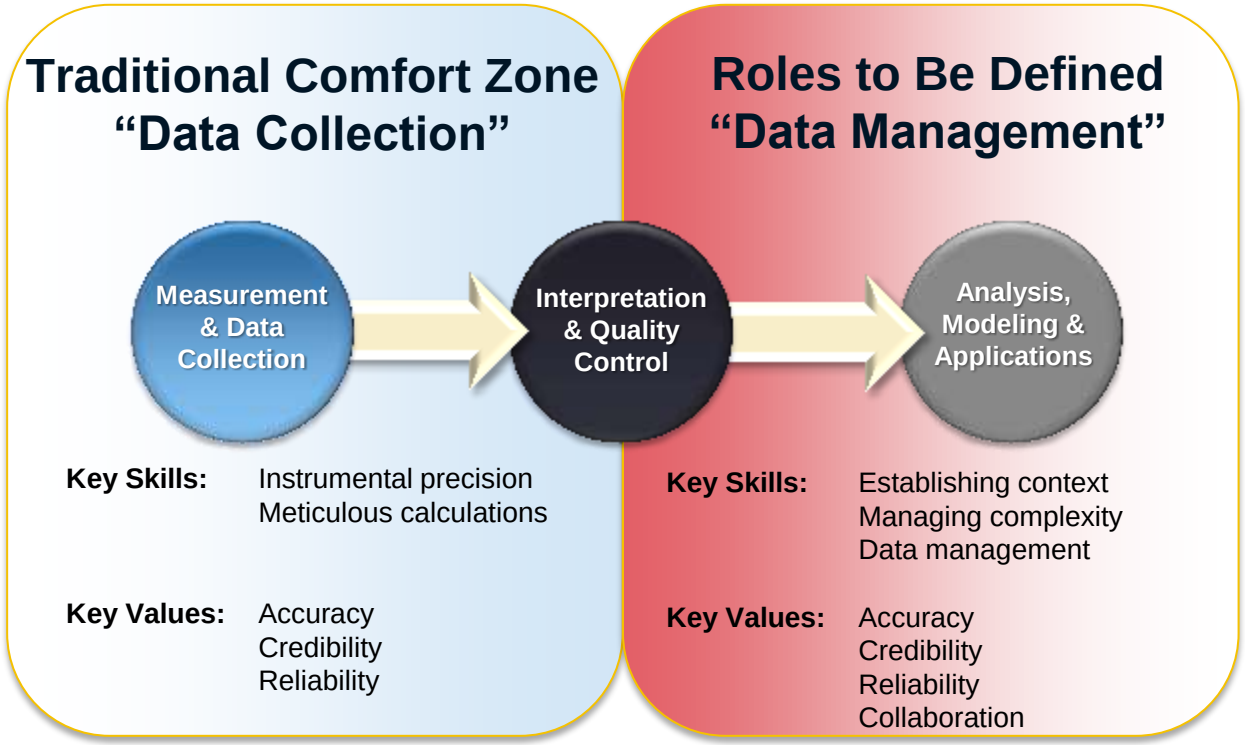
The machine or the tool becomes an extension of the model





The convergence of physical and digital changes the context for the creation and use of geospatial data

Convergence impacts expectations placed on the geospatial practitioner



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