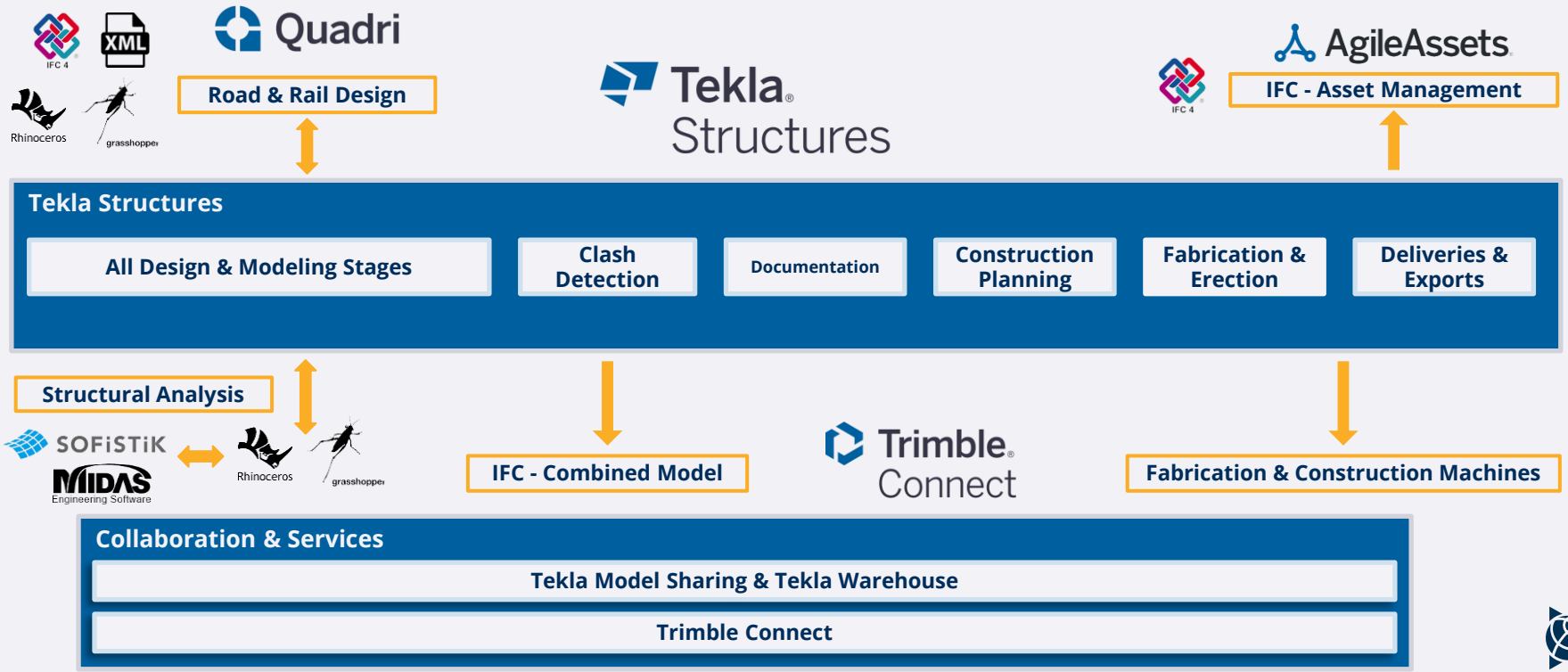
Solutions for Bridge Design & Construction

Trimble for Bridges & Associated Structures

Trimble Workflow for Bridges

The Big Picture



Trimble Quadri

Enable Real-time Collaboration

Multi-User Common Data Environment

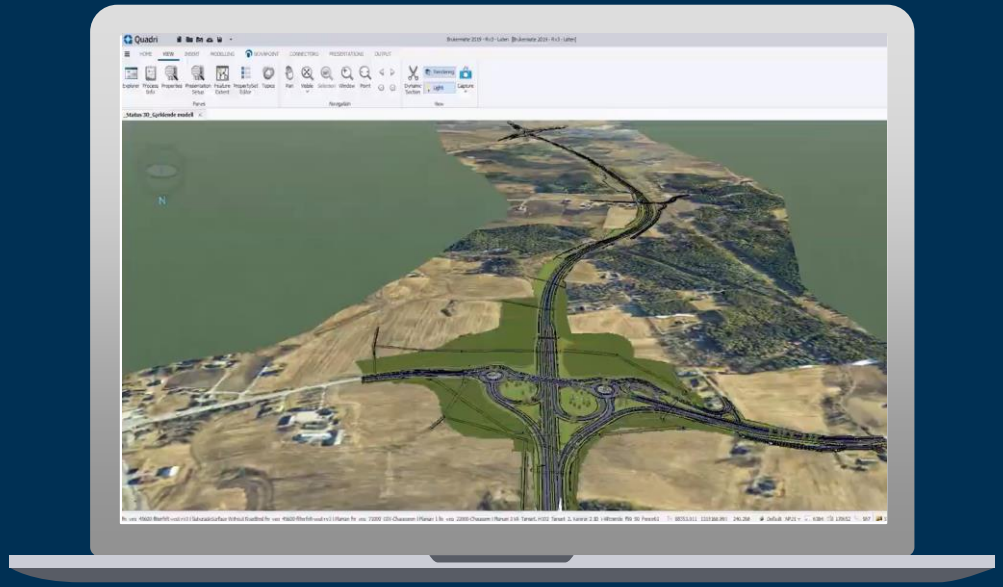
Multi-user, multi-disciplined central model enables collaboration throughout the entire construction lifecycle

Object Based 3D Model

Facilitates near real-time updating of the 3D model without having to wait for full design updates.

Software Agnostic Platform

Allow all stakeholders (i.e. owners, designers, contractors, consultants) to maximize the value of their existing hardware and software technologies and expertise



Trimble Quadri

Software Agnostic Approach to Data Flow

ISO conforming non-proprietary format

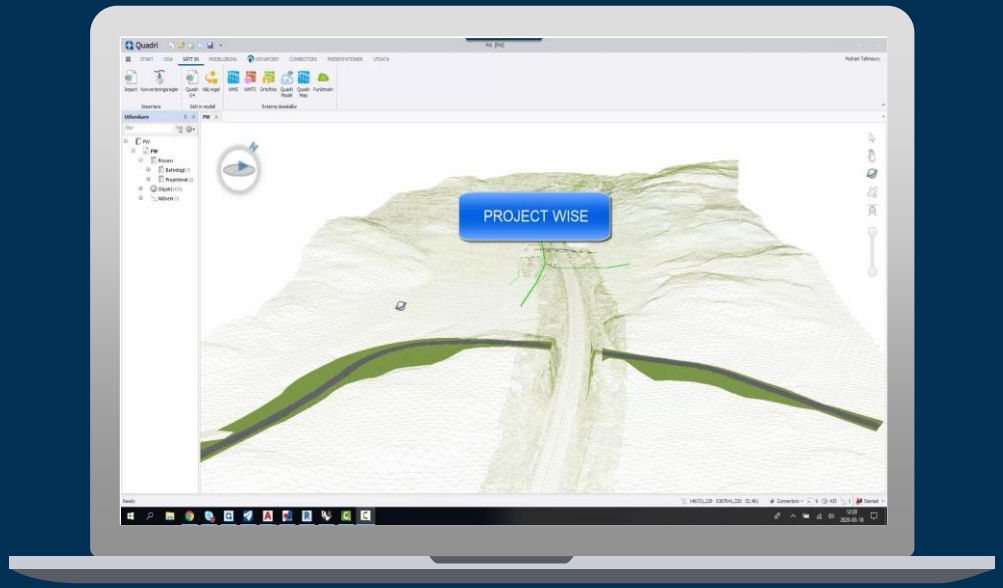
The software agnostic approach removes barriers of proprietary formats

Confidence in your data

Connectors ensure no loss of data fidelity, for importing or exporting of critical data in near real-time. Objects in CDE database are linked dynamically through tasks

Retain existing knowledge & experience

By allowing users to continue to use their software of choice and retain their experience & knowledge



Quadri & Tekla Structures

Integrating Bridges with Roads & Rail Projects

Use always the most updated data

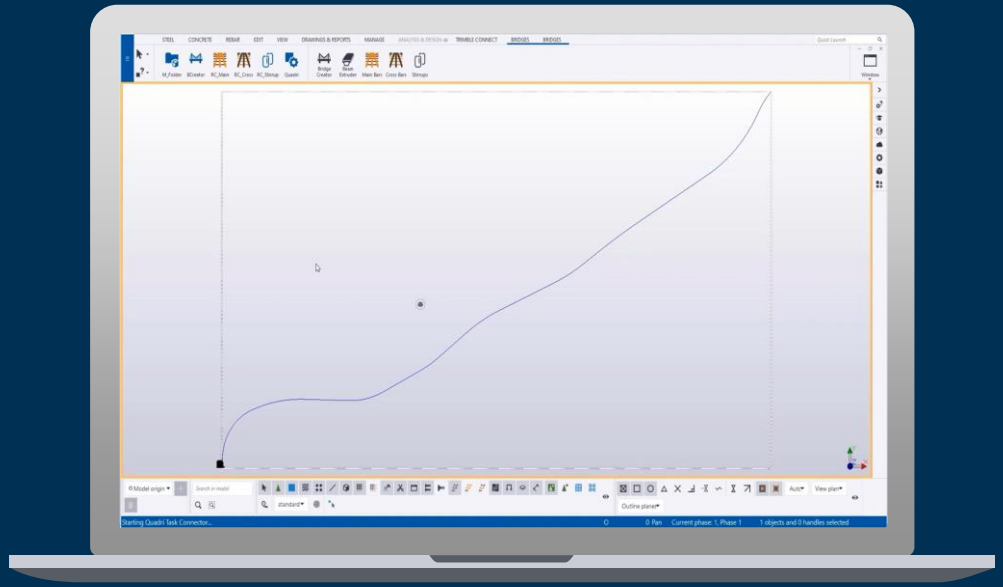
The latest data always available as Quadri is the single source of truth for infrastructure projects

Share updated project data

Share the bridge models for project coordination

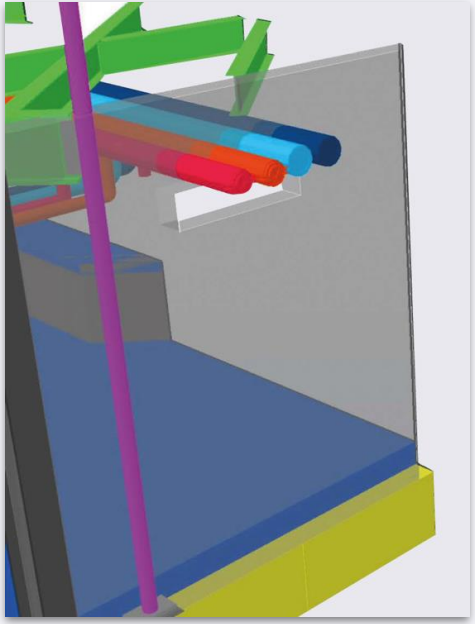
Seamless connection

Quadri Connector for Tekla Structures imports and export data seamlessly between both platforms

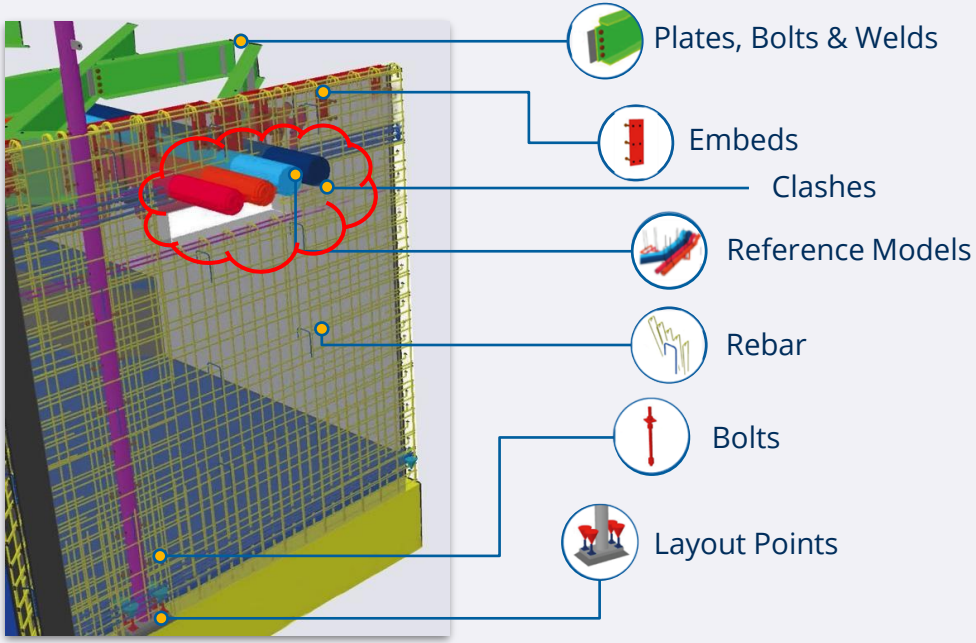


Constructible Model

For True Model-Based Bridge Projects



Conceptual Model



Constructible Model

Project References

What Are Our Clients Doing

Reference Bridge Customers

A-INSINÖÖRIT
AAS-JAKOBSEN
AFRY ÅF PÖYRY
Multiconsult
NetworkRail
ARMANDO RITO ENGENHARIA
ARUP
bam international
RAMBOLL
SKANSKA
Balfour Beatty
BOUYGUES
Caltrans
COWI
VINCI CONSTRUCTION
SWECO Sustainable engineering and design
SYSTRA
KLÄHNE BUNG
Mott MacDonald
wsp

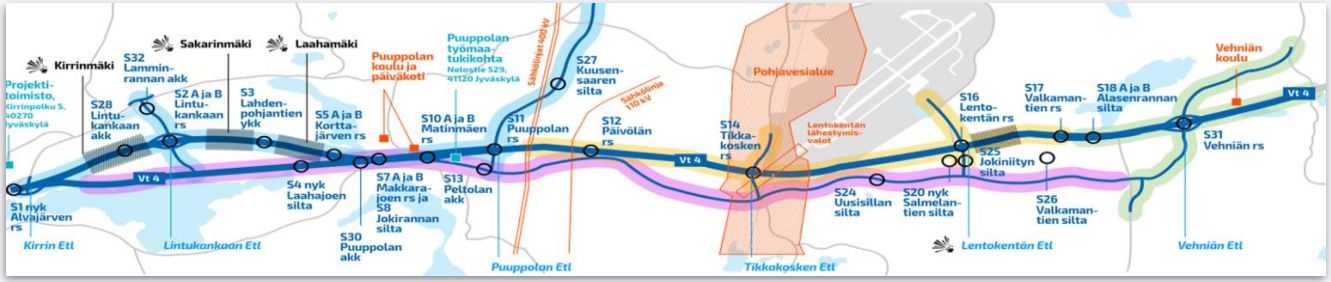
Model Based Projects

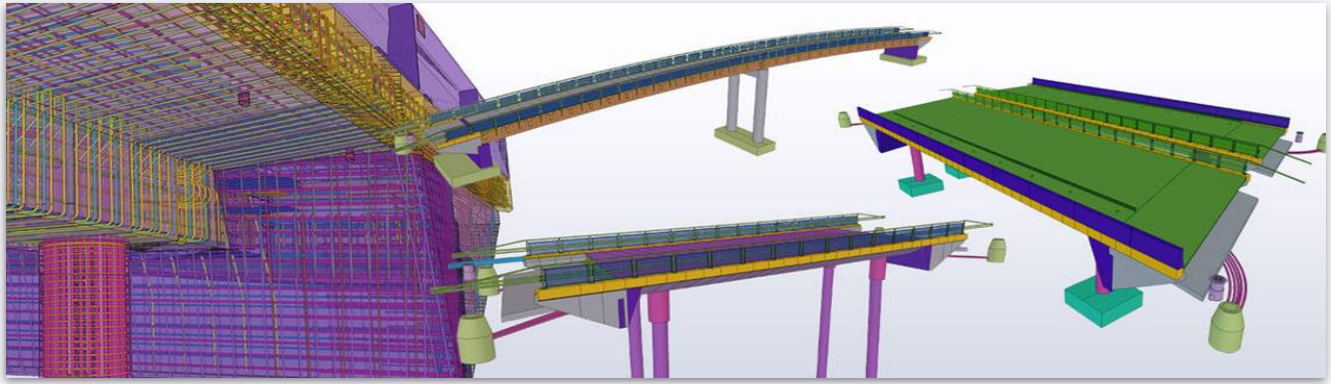
Design / Approve / Build - Based on BIM Models

Highway 4 Kirri-Tikkakoski

15 Km Road & 29 Bridges

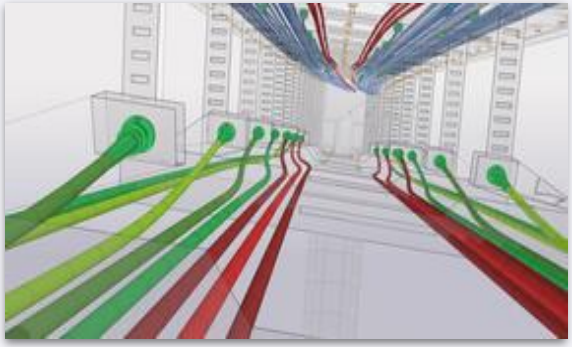
Client: Finnish DOT
General contractor: Destia
Construction project mgm: Welado
Structural design (bridges): Sweco
Road planning: A-Insinöörit
Structural design (noise barriers): WSP
Rebar fabricator: B Group Finland & Lithuania
Bridge scaffolding and formwork: TAK-Plan
Bridge lighting design: Licon-AT



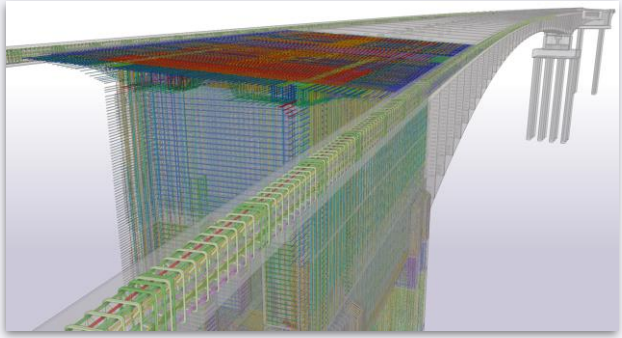


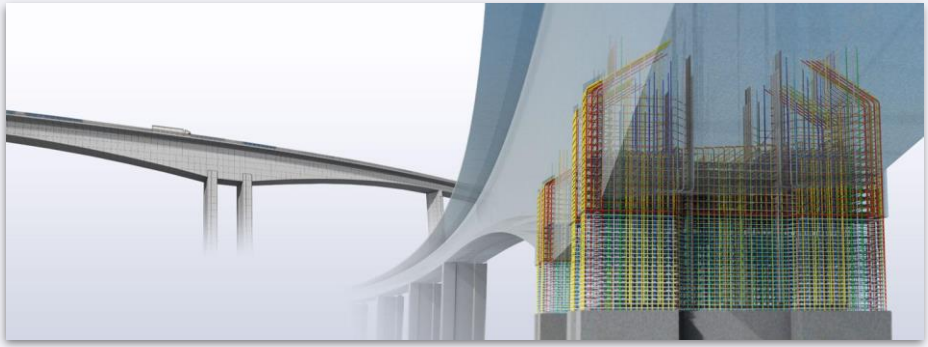
Randselva Bridge

The World’s Longest Bridge Built Without Drawings



Sweco (design modelling)
Armando Rito (calculations)
Multiconsult (3rd party control)
Vegdirektoratet (road authorities)
Statens vegvesen (project owner)
PNC (contractor)





Tekla Structures - C:\TeklaStructuresModels\02-Viaducts\Isabels-Bridge - [View 1 - 3d]

Gabriel Neves

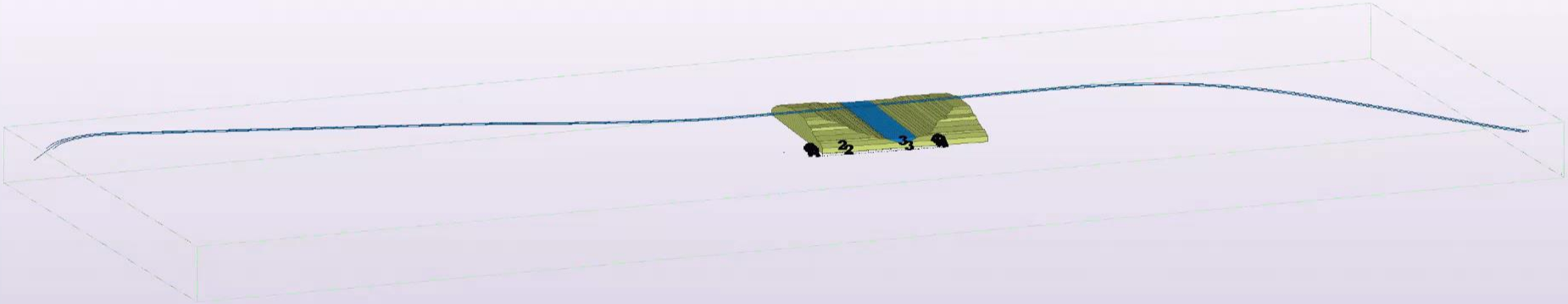
STEEL CONCRETE REBAR EDIT VIEW DRAWINGS & REPORTS MANAGE ANALYSIS & DESIGN TRIMBLE CONNECT MYTAB HELP

Quick Launch

Column Beam Plate Bolt Weld Item Bolted parts Assembly

Column Beam Panel Slab Footing Item Cast unit Pour view Pour break Calculate pour units

Crossing Longitudinal By face By guidelines More Visibil Window



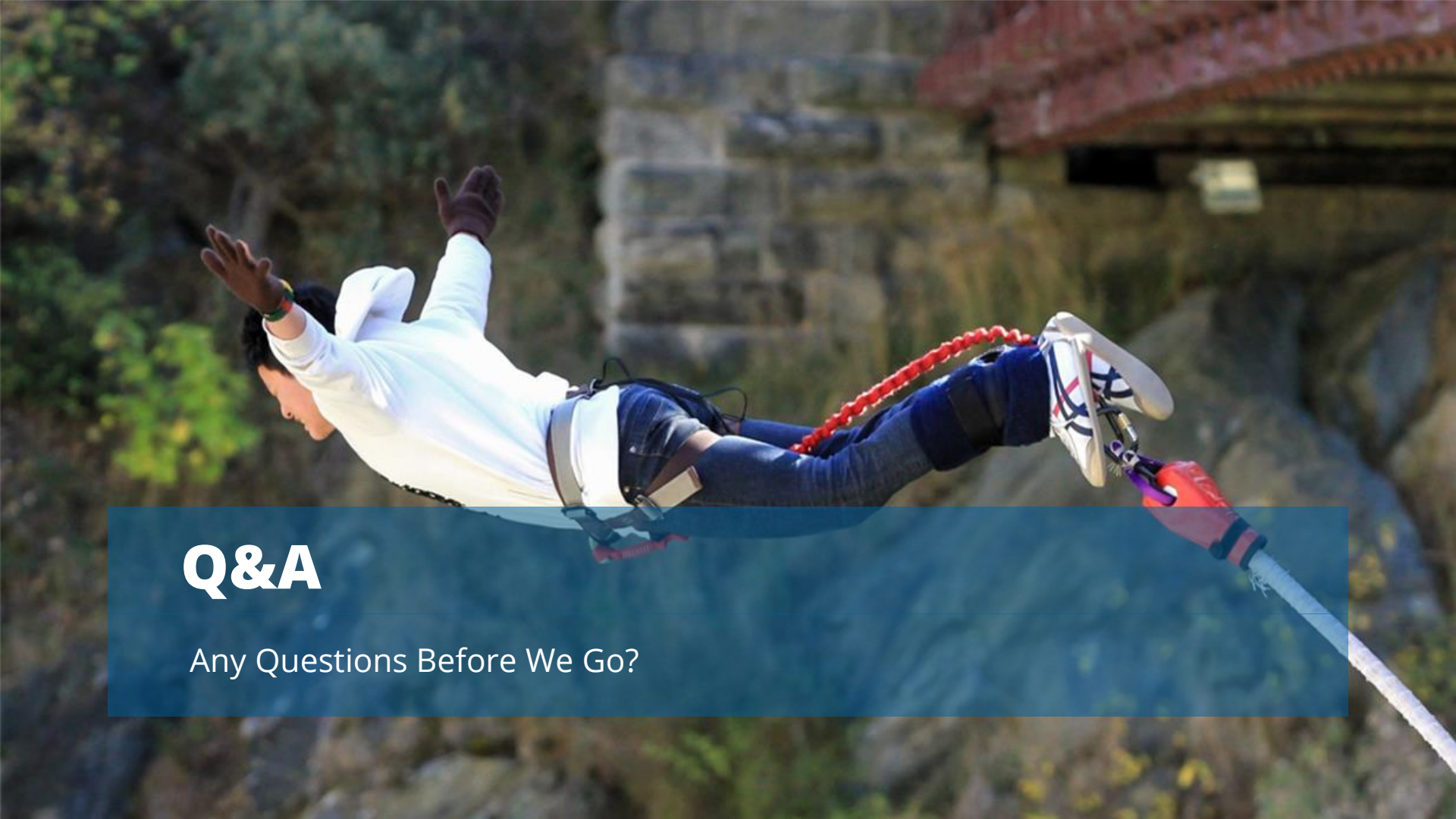
Minimiz

Model origin Search in model standard Auto View plane Outline planes

O S 0 Pan Current phase: 3, Phase 3 0 objects and 0 handles selected

Search

06:16
31/10/2023



Q&A

Any Questions Before We Go?

Thank you

Credits

For Questions
or Feedback
please contact:
gabriel.neves@trimble.com

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