



Schnell. Agil. Präzise.

Scanning neu definiert mit der Leica RTC360 Lösung

Jakob Lidl, Zürich, November 2018

Was wirklich
schwierig ist?

Etwas sehr
Simples zu
erschaffen

“I apologize for such a long letter -
I didn't have time to write a short one.”
Mark Twain.

- when it has to be right

Leica
Geosystems

Leica RTC360 Lösung



- when it has to be right

Leica RTC360 Lösung

RTC360
Laser scanner



Cyclone FIELD 360
Tablet App



Cyclone REGISTER 360
Desktop Software

- when it has to be right

Leica RTC360 Lösung - RTC360 Laser Scanner



- SCHNELL
- AGIL
- PRÄZISE

- when it has to be right

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Leica RTC360 Lösung – Cyclone FIELD 360



- VISUALISIEREN
- KONTROLLIEREN
- ERWEITERN

- when it has to be right

Leica RTC360 Lösung – Cyclone REGISTER 360



- DRAG
- DROP
- DONE

- when it has to be right

Leica RTC360 Lösung



- when it has to be right



TruRTC Technology Inside RTC360

- when it has to be **right**

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Leica RTC360 Lösung - RTC360 Laser Scanner



Leica RTC360

- when it has to be right



Laser Distanzmessung



- when it has to be right

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TruRTC Technologie – Laser Distanz Messung



Schnell: bis zu 2 Mio Punkte pro Sekunde

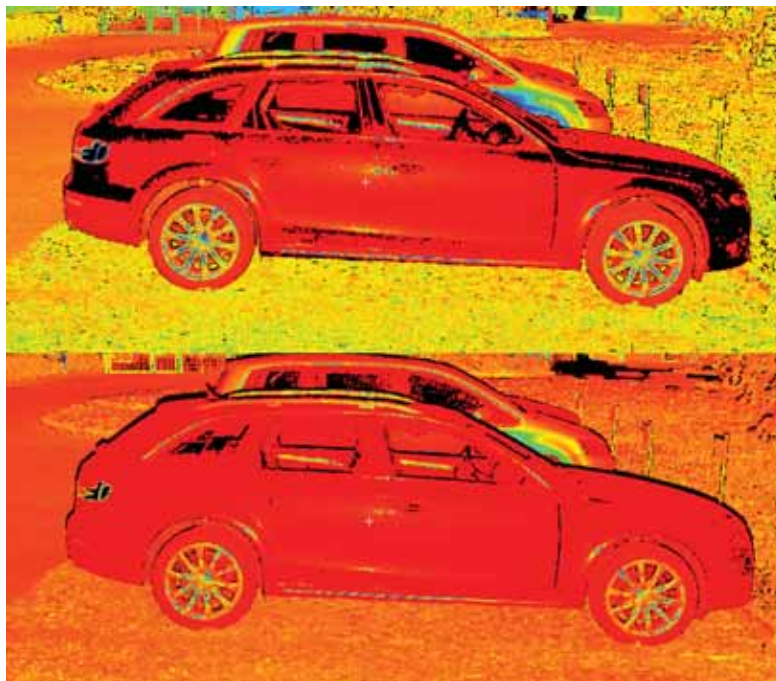
3 mm full dome scan < 2 Minuten

Dynamisch: Punkte auf Oberflächen mit unterschiedlicher Reflektivität

TruRTC Technologie – Laser Distanz Messung



TruRTC Technologie – Laser Distanz Messung



- when it has to be right

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Sphärische Kamera



TruRTC Technologie – Sphärische Kamera

Schnell: 1 Minute für 360° HDR Bilder,
unabhängig von Lichtverhältnissen

High dynamic: von hellem Sonnenlicht bis
Dunkelheit

TruRTC Technologie – Sphärische Kamera



- when it has to be right

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VIS

Visual Inertial System

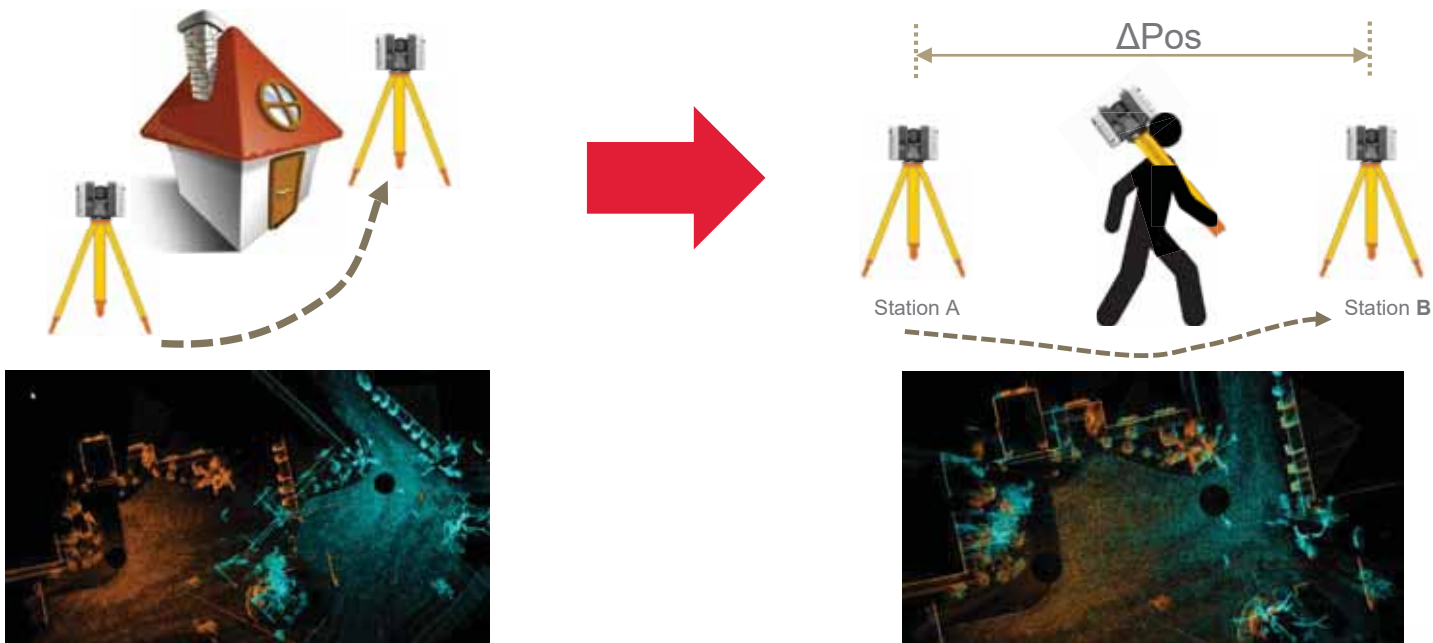
- when it has to be right

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Visual Inertial System

VIS liefert den Positions- und
Orientierungsunterschied zwischen zwei
aufeinanderfolgenden Setups

VIS - Visual Inertial System



- when it has to be right

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VIS - Visual Inertial System



- when it has to be **right**

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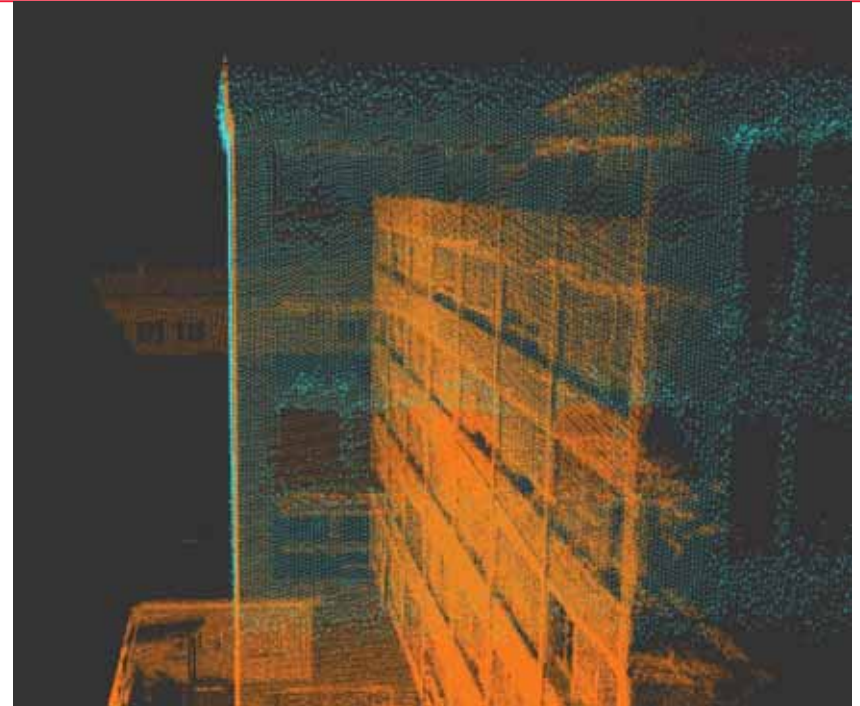
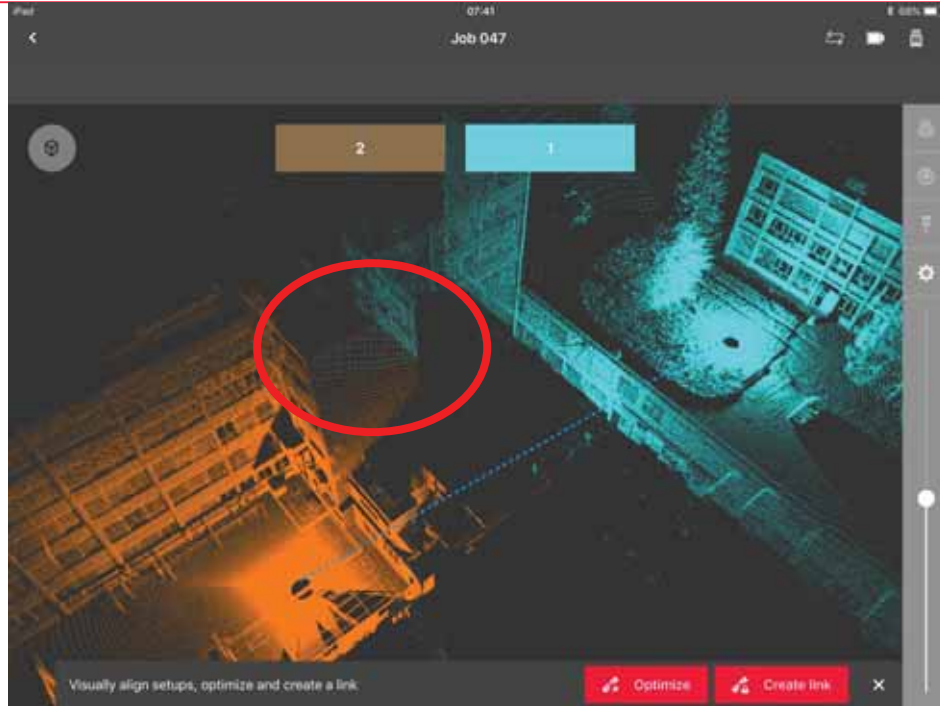
Visual Inertial System



- when it has to be right

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Visual Inertial System



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Leica RTC360 Lösung

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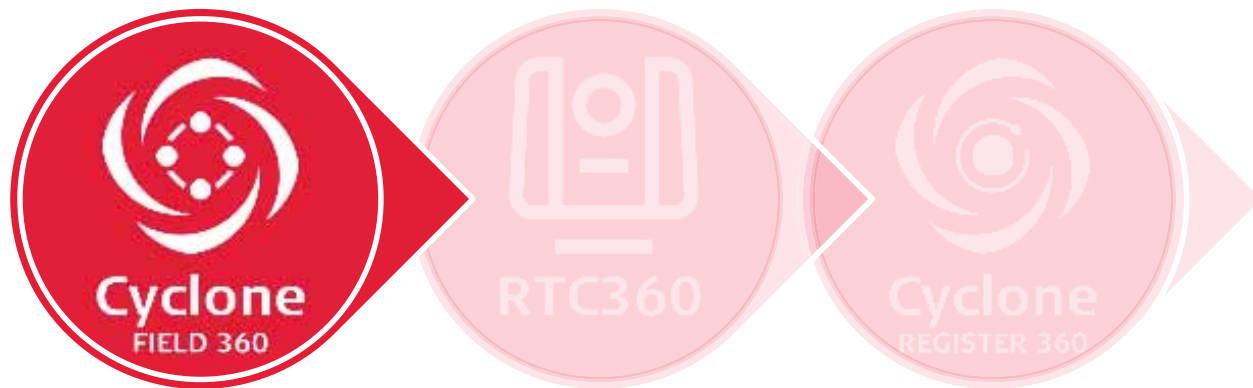
Cyclone FIELD 360
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Cyclone REGISTER 360
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Leica RTC360 Lösung



- when it has to be right



- when it has to be right

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Leica RTC360 Lösung – Cyclone FIELD 360



- VISUALISIEREN
- KONTROLLIEREN
- ERWEITERN

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Cyclone FIELD 360. Visualisieren.



- **Map:** 2D Kartenansicht mit Setups und Links.
- **360:** HDR Farbansicht oder Intensitäts darstellung (Farb- oder Grauwerte).
- **3D:** 3D Punktwolken Darstellung von markierten Setups oder Bundles.



Cyclone FIELD 360. Kontrollieren.



Vor Ort Kontrollmöglichkeiten für verbesserte Gesamtproduktivität:

- Qualität
- Vollständigkeit
- Überlappung und Vorregistrierung



Cyclone FIELD 360. Erweitern.



- Tags
 - Foto
 - Video
 - Audio
 - Text
 - Dokumente
- Spannmasse



Demo

- when it has to be right



Leica RTC360 Lösung

RTC360
Laser scanner



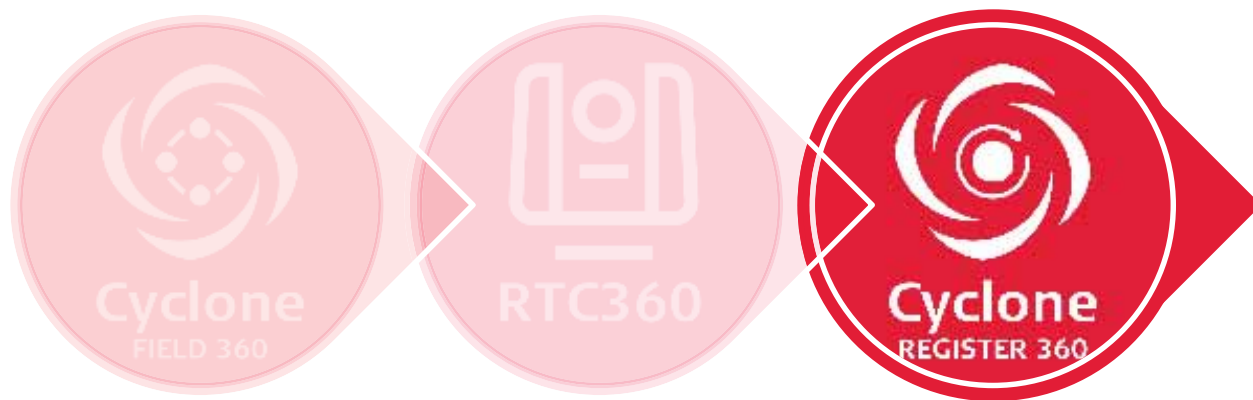
Cyclone FIELD 360
Tablet App



Cyclone REGISTER 360
Desktop Software

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Leica RTC360 Lösung



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Leica RTC360 Lösung – Cyclone REGISTER 360

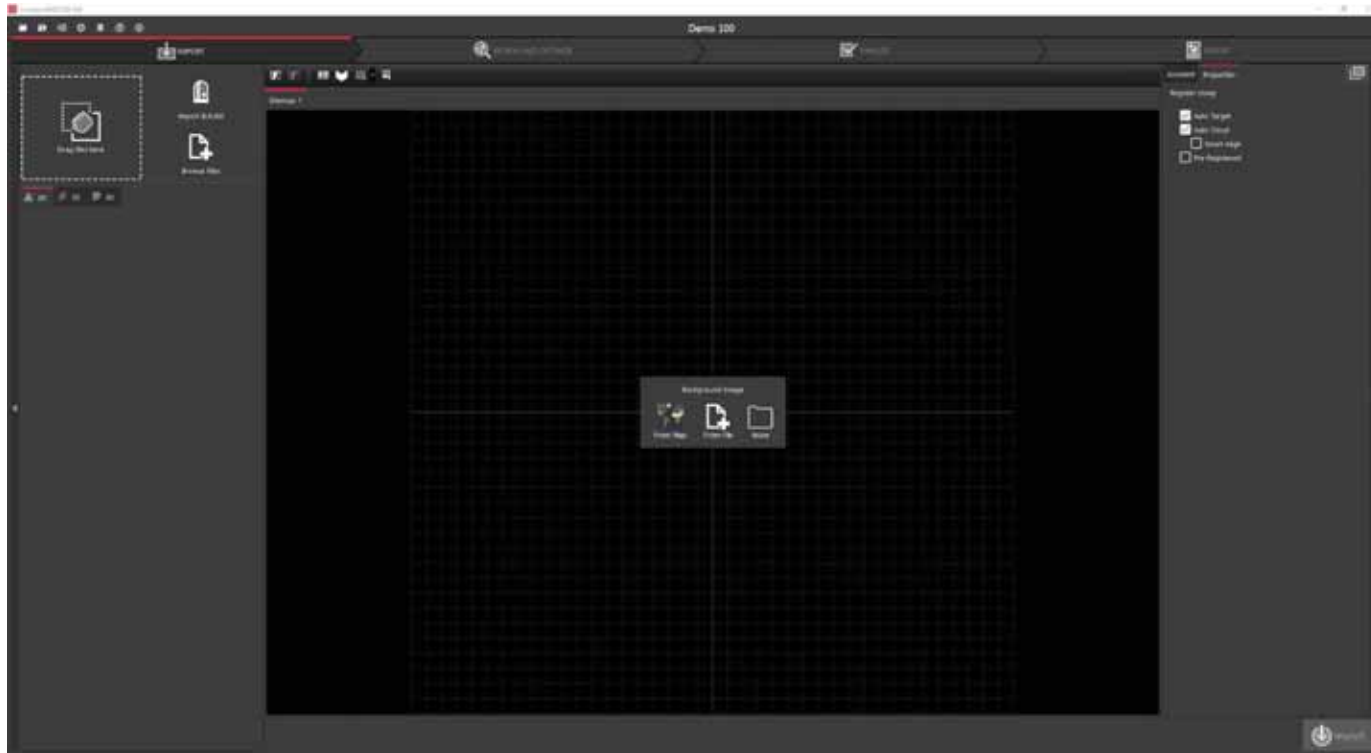


- DRAG
- DROP
- DONE

- when it has to be right

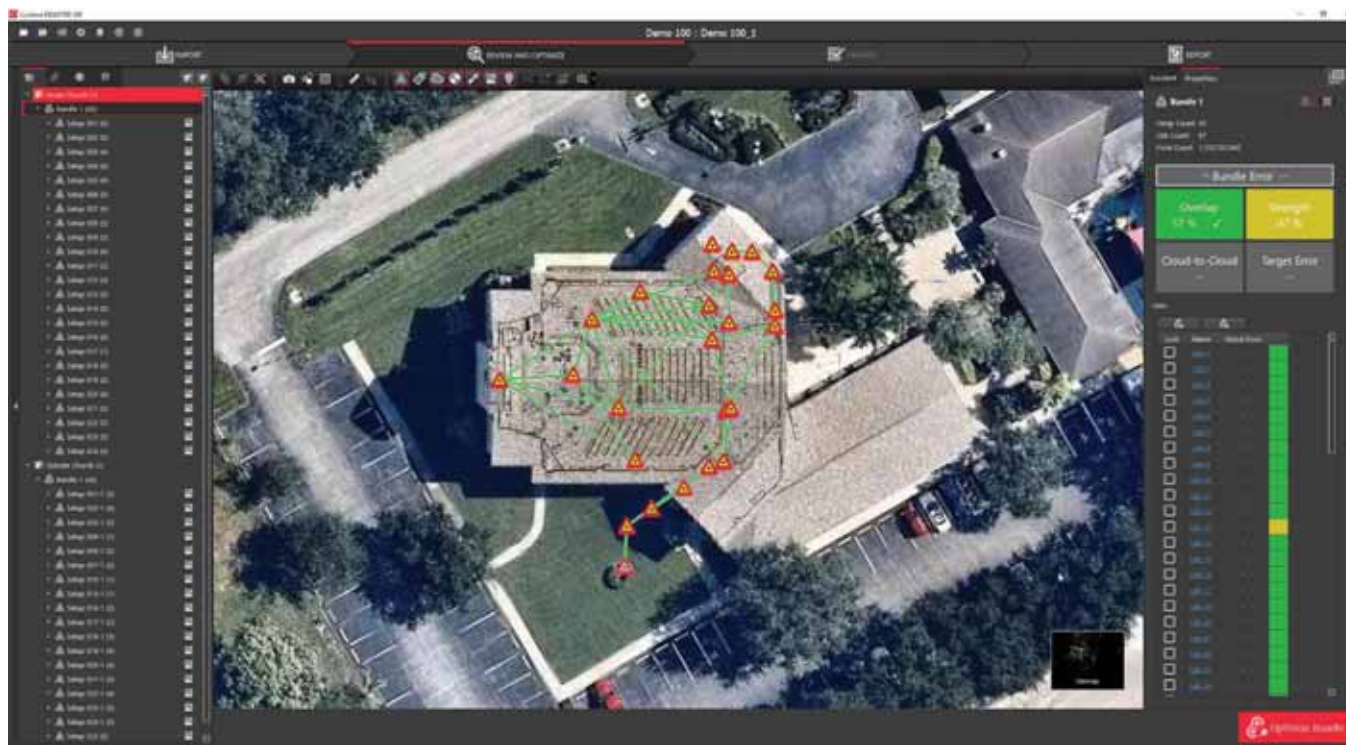


Cyclone REGISTER 360 – Importieren & Registrieren



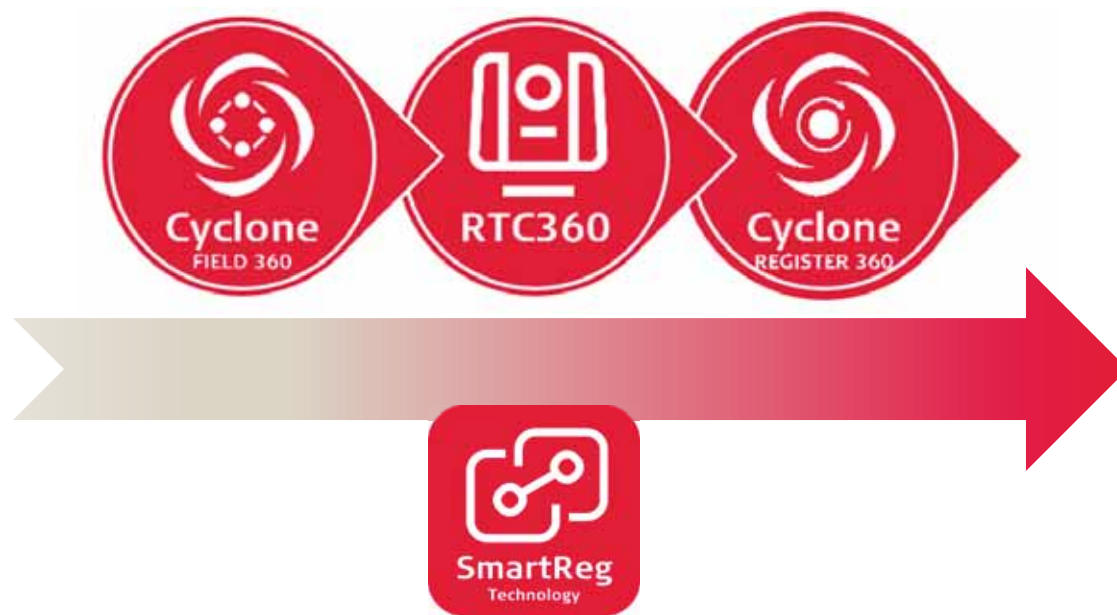
- when it has to be right

Cyclone REGISTER 360 – Qualitäts Kontrollen



- when it has to be right

RTC360 «SmartReg» Workflow



- when it has to be right

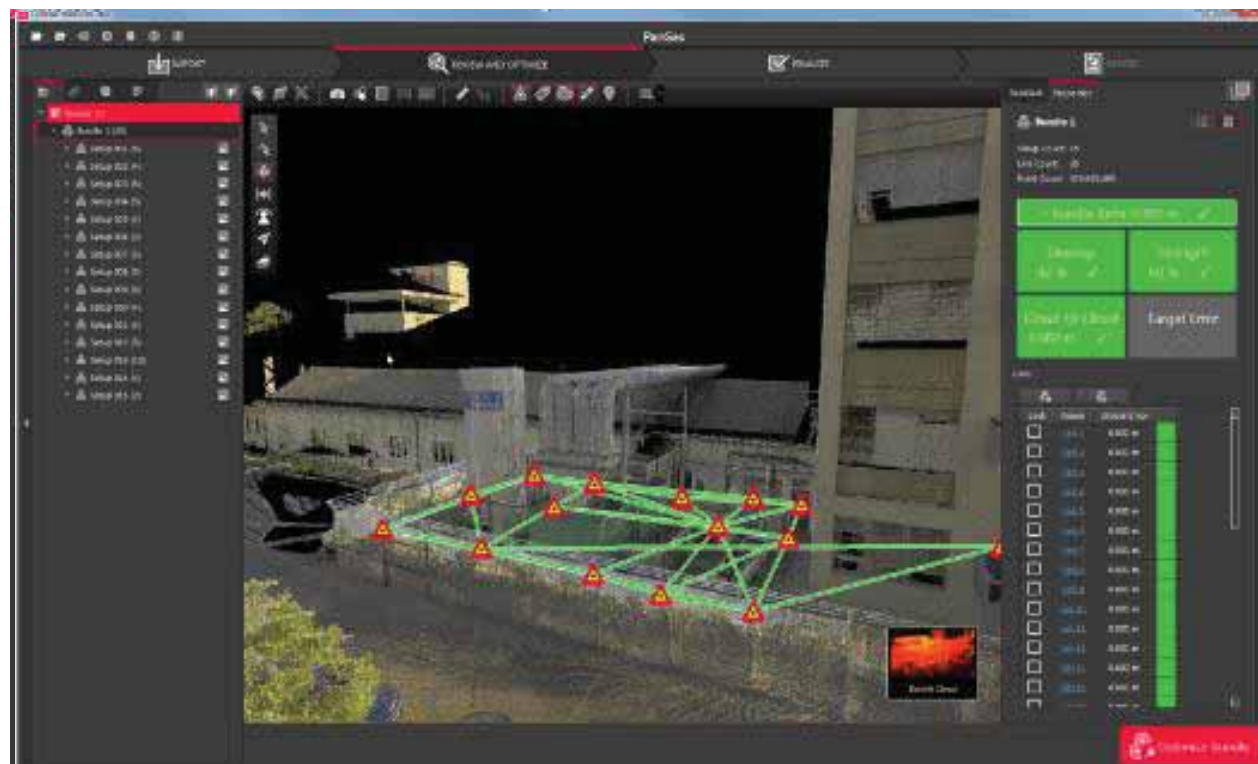
RTC360 «SmartReg» Workflow



- when it has to be right

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RTC360 «SmartReg» Workflow

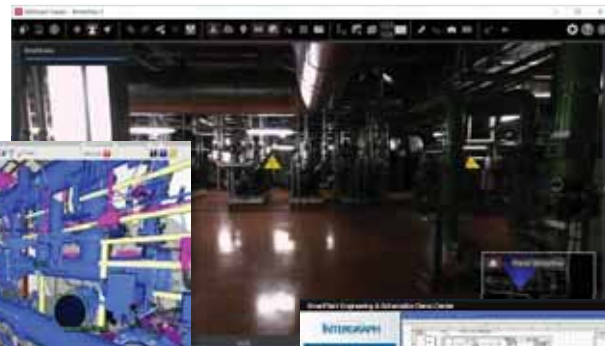


- when it has to be right

RTC360 Workflow



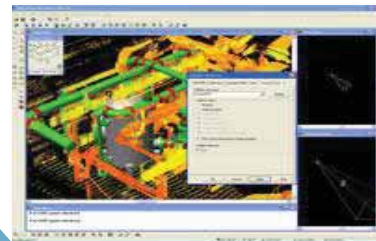
Leica TruView



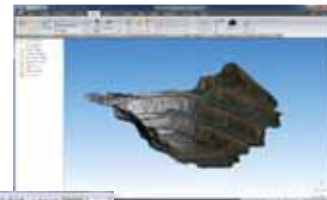
CloudWorx for Smartplant 3D



Leica IMS Map360



CloudWorx for AutoCAD



3D Reshaper



Cyclone Model & Survey



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