

“OPTiM Geo Scan Corporate License”, a mobile integrated operation solution for construction sites, has been introduced to Shimizu Corporation

This solution is being implemented at various sites both domestically and internationally, and is being recognized as a new standard infrastructure beyond just a surveying apps.

OPTiM Corporation (hereafter called “OPTiM”) is pleased to announce that Shimizu Corporation has started to implement OPTiM Geo Scan (hereafter called “Geo Scan”) corporate license.

■ Background of Introduction

In the construction industry, there is an urgent need to improve productivity in response to the shortage of engineers due to the declining birthrate and aging population, as well as stricter regulations on overtime work due to the 2024 problem. Shimizu Corporation's civil engineering division began using “Geo Scan” in February 2022 with the aim of improving site efficiency and labor savings, and has been utilizing the system at various sites.

As a result, Shimizu Corporation evaluated “Geo Scan” as follows: “Geo Scan will become a new infrastructure in the construction industry, just like CAD software and Office products,” and decided to introduce a new corporate license for “Geo Scan”.

<Shimizu Corporation's evaluation points of view>

1. Product concept and track record
2. Comprehensive support for each site, covering everything from introduction to implementation and technical assistance
3. Rental scheme that does not involve device procurement or asset management

■ About “Geo Scan Corporate License”

We offer an annual contract of five or more licenses as a “Geo Scan” corporate license.

When multiple licenses are introduced as in the case of a corporate license, the procurement of necessary devices, asset management, monitoring of utilization status, and technical follow-up at each site become complicated issues. Therefore, we provide support for corporate licenses as if we were a member of the company that has introduced the license, and provide support that is as hands-off as possible.

Specifically, we provide the following comprehensive services and support for corporate licensees: not only technical implementation, implementation and support, but also procurement, provision, and asset management.

<The main support contents and features>

- One-stop service which includes procurement and provision of equipment (iPhone, GNSS receiver, etc.), data communication, and location data correction services necessary to start using “Geo Scan” for each contracted company site.
- By using a rental scheme rather than a purchase scheme for the equipment required for “Geo Scan”, the service does not require asset management by the contracting company.
- Speedy delivery of a complete set of equipment (including rental equipment^{*1}) necessary to start using “Geo Scan” when a new installation is requested by a subscriber.
- On-site or remote support that strongly assists the entire process from introduction to implementation and technical support.

■ Use Cases of Shimizu Corporation

◆ Use cases by area, construction type, and client

In the two and a half years since “Geo Scan” introduction, the service has been widely used at more than 23 sites in all regions of Japan and overseas, regardless of the type of construction work or the contractee.

導入から2年半で、国内の全地域・海外の23以上の現場で幅広く使用



Geo Scan を活用している工種

-  • 道路
-  • 鉄道
-  • トンネル
-  • 橋梁
-  • ダム
• 河川
• 砂防
-  • 上下水道
-  • エネルギー
-  • 造成

■Outline of “Geo Scan” and examples of use

◆About “Geo Scan”

“Geo Scan” is the service that integrates expensive surveying instruments, CAD, etc. into a smartphone. This allows anyone to perform "cutting-edge 3D ICT construction work, daily construction management work, surveying and inspections" on a smartphone. Therefore, it is possible to realize not only surveying, but also comprehensive operational efficiency at construction sites.

最先端の3次元 ICT 対応から
日常的な施工管理、測量や検査対応まで

Geo Scan のご紹介

～測量アプリ一覧～

分類	高精度 3次元スキャナー	スマホ 1人測量	高性能 RTK-GNSSレシーバーにも
アプリ	<p>スマホ 3次元測量 (ハンディタイプ)</p> <p>スマート地上型レーザースキャナー (長距離タイプ)</p> <p>Geo Scan</p> <p>Geo Scan Advance</p>	<p>Geo Point</p>	<p>高性能 GNSSレシーバー</p>
機能	<p>スマホを対象をスキャンするだけ</p> <p>NETISの最高評価VE^{※1}をスマホ測量で唯一獲得</p> <ul style="list-style-type: none"> ●小規模だけでなく、国交省が発注する大規模工事での出来形検査でも実績多数あり ●第三者機関の論文での検証により、2σ±20mmと高い測量精度を確認^{※2} <p>新次元の「低価格」と「簡便さ」の融合</p> <ul style="list-style-type: none"> ●全ての現場への普及を願い、地上型レーザースキャナー相場の価格の1/20以下の圧倒的な低価格でのご提供 ●水平だしなどの煩わしい作業は不要で手軽に高精度な広範囲3次元測量が可能 	<p>位置出し、丁張りたい場所をタップするだけ!</p> <p>自動追尾TS^{※3} 越えの手軽さ</p> <p>高精度なRTK-GNSS測量でリアルタイムに座標データを取得可能なため、非常に簡便なスマホ1人測量が可能</p>	<p>利用可能な場面を大幅に拡張した3周波・傾斜計付き、高性能レシーバー</p> <p>国土地理院1級GNSS測量機と連携し、3周波で解析を行うことにより都市部や山間部などでもGNSS測量が可能に</p> <p>利用可能エリア</p> <p>都市部 山間部</p>

※1 出典：NETISにおける(Geo Scan)の精度の検証(結果必須評価結果)は以下のとおり。
NETIS 最新評価報告書(システム)OPTiM Geo Scan 都市部実地実証実験
<https://www.netis.mlit.go.jp/NETIS/Files/Eval/Netis/EvalResult/JS-210050C1.pdf>

※2 詳細は日経コンストラクション2022年11月号より

※3 トータルステーション

～業務支援アプリ一覧～

分類	数量計算	3次元設計データ作成	図面作成
アプリ	<p>距離計算 面積計算 体積計算</p> <p>生コン数量計算</p>	<p>3D設計</p>	<p>Geo Design</p>
機能	<p>資材発注、原価管理、発注者協議等、現場で頻発する数量算出がスマホで手軽に</p> <p>座標データや点群データから現場の表面積や距離、体積、容積、切盛土を計算</p>	<p>ICT施工対応などの最先端測量だけでなく通常の工事の丁張設置まで、スマホで可能に</p> <p>誰でもたったの3STEPでスマホで3次元設計データの作成が可能</p>	<p>従来、別途必要であった図面作成のためのソフトが不要に</p> <p>3次元データ・座標データから平面・縦断線形、横断形状の作成が可能</p>

◆Use Cases of apps included in “Geo Scan”

Each apps of “Geo Scan” is used in a wide range of applications to improve productivity in various processes.

～活用事例のご紹介～

<p>起工測量～図面作成～施工管理までをスマホで一気通貫で実施し、効率化・省人化</p> <p>外注に頼らずに起工測量を実施しただけでなく、スマホ上で施工図面を作成し、その図面から施工位置出しまでスマホでシームレスに実施</p> <p>Geo Scan Geo Point Geo Design</p>	<p>発注者協議を迅速かつ簡単に</p> <ul style="list-style-type: none"> 実施数量報告のために起工前と着工後で土工事の数量を把握することで、発注者協議の資料の作成 掘削時に想定外の支障物が発見された場合に、3次元データを取得し発注者との協議の設計変更資料を作成 <p>Geo Scan Geo Scan Advance 体積計算</p>	<p>高精度な原価管理を手軽に</p> <p>大規模な土工事現場において、施工数量把握をするために、日々の進捗をスマート地上型レーザースキャナーで3次元データで正確に把握 (従来手法:ダンプの台数に基づいた概算数量計算)</p> <p>Geo Scan Advance 体積計算</p>
<p>仮設工事・準備工事などの測量を効率化</p> <p>作業ヤード・仮設ヤードなどの位置だしをスマホで実施 (従来方法:TSや自動追尾TSでの位置出し)</p> <p>Geo Point</p>	<p>短時間な施工管理がスマホだけで高精度に</p> <p>数百から数千の管理基準点がある大規模な造成現場の、盛土締固め領域の指定をスマホだけで高精度に実施。 (従来方法:TSによる位置出し)</p> <p>Geo Point</p>	<p>山間部でも RTK-GNSS 測量を実施</p> <p>従来であれば衛星電波が受信が困難な山間部等でも実施</p> <p>高性能 GNSS レシーバー</p> <p>Geo Scan Geo Point</p>
<p>資材発注・原価管理・発注者報告を高精度かつ迅速にスマホで実施</p> <ul style="list-style-type: none"> 法面工事や舗装工事などの計画数量や実施数量をスマホで瞬時に算出し、資材発注、原価管理、発注者への報告を実施。 仮置き土砂などの資材の体積計算をスマホだけで実施し、ダンプの配車計画や発注者への報告など、現場で頻発していた業務に活用 (従来手法:TSを使用し断面図を作成し、平均断面法等の手法で切盛土数量などを計算) <p>Geo Scan Geo Point 面積計算 体積計算</p>	<p>生コンクリート打設工事における必要資材の発注量の計算が誰でも簡単に</p> <ul style="list-style-type: none"> 曲面など複雑な形状でも、生コンクリートの未打設領域の計算をスマホ上で行い、必要資材の発注量の計算を誰でも高精度に実現。 熟練の技術者に依存せず高精度な数量算出の標準化が推進 <p>3次元設計データ (インポート/ダウンロード) トンネル現場 3次元設計データ (インポート/ダウンロード打設計画) トンネルインポート施工計画 打設現場 (現場データ入力) スキャン後の現場</p> <p>3D 設計 生コン数量計算</p>	<p>スマホで設計業務の工数を削減</p> <p>設計施工が必要な現場において、測量から図面作成や数量算出など設計業務の以下の工数を削減。</p> <ul style="list-style-type: none"> 法面防護工アンカー打設工事等の、設計・施工が必要なフェーズにおける、現状地形の測量と横断面作成。 アンカー打設設計をする際にスマホで展開面積を算出し、打設数量設計へ活用。 <p>Geo Scan Geo Point Geo Design 面積計算</p>

■Future Prospects

OPTiM will continue to visit construction sites and learn everything we can from them so that “Geo Scan” can become an "essential part of the construction industry, like air" in the construction industry. We will do our utmost to improve the service and enhance its functionality to solve as many problems and hassles as possible and to further increase productivity.

Press Release



■ For those who want to know more about “Geo Scan”

We are holding the following information and events.

Inquiries for demos, interviews, quotes, etc.

<https://www.optim.co.jp/contact/optim-geo-scan?purpose=demo>

“Geo Scan” Trial Session

<https://www.optim.co.jp/construction/optim-geo-scan/lp/trial/>

“Geo Scan” Webinars

<https://www.optim.co.jp/construction/optim-geo-scan/seminar/>

Download detailed and useful “Geo Scan” materials

<https://www.optim.co.jp/construction/optim-geo-scan/download/>

Learn more about “Geo Scan”

<https://www.optim.co.jp/construction/optim-geo-scan/>

※1 Rental equipment includes iPhone, GNSS receiver, “Geo Scan” and MDM service^{※2}.

※2 The iPhones in the rental equipment are managed by “Optimal Biz,” an MDM service that has held the No.1 share^{※3} in the MDM market for 14 consecutive years. By configuring dedicated “Geo Scan” terminals, private use of business terminals is prevented, thereby preventing information leaks and increased communication volume.

※3 Source: Deloitte Tohmatsu MIC Economic Research Institute
Cloud Services Market Status and Outlook FY2013 Edition" IT asset management (including MDM) market "Total Sales" FY2011-FY2012 results (published in 2013),
Collaboration/Contents Mobile Management Package Software Market Outlook FY2014 Edition" MDM Market Trend "Number of MDM Shipped IDs (including SaaS/ASP)" FY2013 Results (published in 2014),
Collaboration/Contents Mobile Management Software Market Outlook," MDM Market Trend, "Number of MDM Shipped IDs (including SaaS/ASP)," FY 2014 - FY 2017 Results (published in 2015-2018),
Collaboration and Mobile Management Software Market Outlook," MDM market, "Number of MDM Shipped IDs (including SaaS and ASP)," FY 2018-2023 results and FY 2024 forecast (published in 2019-2024).

■ About OPTiM Corporation <https://www.optim.com>

OPTiM is a leader in internet-based services that improve its clients' interactions with technology in all aspects of everyday life. Its solutions provide comprehensive IoT management and multifunctional remote communication. Its business partners include NTT, KDDI, Canon and FUJIFILM Business Innovation Japan Corp. Based in Tokyo, Japan, its corporate motto is, "We make the net as simple as breathing."

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Inquiries

OPTiM Public Relations Team

press@optim.co.jp TEL: +81-50-1746-3938 FAX: +81-3-6435-8560