

Product Presentation

Applicant Name : ConTech pOint Co Ltd

Product Name : CIA (Construction Information Anywhere)

Specification :

Web-based platform (support Chrome, IE11, Edge, Safari) with Mobile Device App (Support Android 6.0+ & iOS 11.0+), Support English, Traditional Chinese and Simplified Chinese

Core Functions :

Document Control System (DCS)

Drawing Management

e-Form & workflow

Photo Management with GPS locations data

BIM Module : Web Viewer, BIM virtual war room meeting and model mark up

3D scan point and 360 photo cloud viewer

Project Calendar with interactive timeline viewer.

User Management

Multi Company Account

Full-text Search

Technology Used :

SSL Certificate

MS SQL 2016

Crystal Report

OCR & Real-time Spell Check

Microsoft .net

Autodesk Forge, ThreeJS

Html5, iOS & Andriod Compatible

Construction Process Involved :

Design, Construction & Completion Stage

Key Improvement in Construction Process:

- Productivity
- Quality
- Safety
- Environmental

Job Reference:

Project Name	Location	Nature	Year
Eight Kwai Fong Street (owner: Farzon Group)	8 Kwai Fong Street, Happy Valley, Hong Kong	Adoption	2019 - 2020
The Development at L894 and L923 of Chek Lap Kok Lot No. 3, Hong Kong International Airport (SkyCity Development) (owner: HK Airport Authority)	L894 and L923 of Chek Lap Kok Lot No. 3 Hong Kong International Airport	Adoption	2018 - Present



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Innovation Features

Core Technology:

Secure and encrypted data protection
Single a/c to manage multiple companies & projects
3D-rich interactive medias
Unique digital signature for transaction & drawings
Bespoke workflow for local industry

Patent :

Short-Term Paten No.: HK1251889
Title of Invention : Construction Project
Management System

Comparison with current practice :

- Paperless
- Access data without location and time limitation
- Standardize workflow
- High security data access
- Read various type of file in a web platform
- Manage Scattered information which is generated from project life cycle,

First Launch Date :

CIA 1.0 Jan 2017
CIA 2.0 Jan 2021

Security :

Project information is stored in secured and scalable private cloud storage.
System pass through the network security penetration test.

Comparison with Pre-approved list products :

- Comprehensive common data sharing platform, support over 40 document types
- Facilitate multi company & company role in one-login account
- Enable Quantity take-off on CIA BIM viewer
- Automatic generate QR Code for printed drawing and document
- Design for standard construction submission form, RFI, TSF, SSF, etc.



Adoption Example

Project for Illustration : The Development at L894 and L923 of Chek Lap Kok Lot No. 3, Hong Kong International Airport (SkyCity Development)

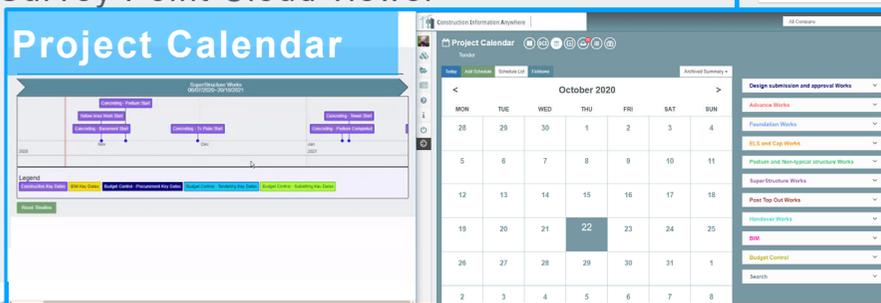
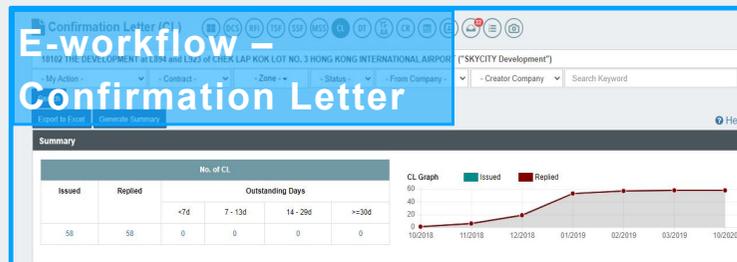
Work Process : Detail Design & Construction Stage

Functions in Project :

- Document Control
- Drawing Management
- Workflows : RFI, TSF, MSS, SSF, DT
- Project Management Tool : Calendar, E-tray, To-Do-List
- Site Photo Management
- BIM Collaborator
- BIM Quantity take-off
- 360 Site photo & VVMU (Virtual Visual Mock-up viewer)
- Survey Point Cloud viewer

Multi-Company w/ E-tray

#	Company	Distribution No.	Distributed	Distributed by	Distributed To	Project	DocSet No.	DocSet Date	From (Company)	To (Company)	Subject	Document Type	Drawings	Att
1	Hip Seng Builders Ltd	0001880	14-Oct-2020 16:11	Yumi Chan Yui Mei	18102 - DCS User (Distribution) - NWCON_BIM_18102...	18102	120887	12-Oct-2020	Hip Seng Builders Ltd	Distribution	Internal Meeting No. 61	Meeting Minute		
2	Rory LM	00075038	10-Sep-2020 11:33	Yumi Chan Yui Mei	18102 - DCS User (Distribution) - NWCON_Budget Co...	18102	122523	09-Sep-2020	Hip Seng Builders Ltd	Distribution	Site A3 - Package Contractor Meeting No. 41	Meeting Minute		
3	New World Construction Co Ltd	00072202	26-Aug-2020 14:52	Yumi Chan Yui Mei	18102 - DCS User (Distribution) - NWCON_Budget Co...	18102	120851	20-Aug-2020	Hip Seng Builders Ltd	Distribution	Internal Meeting No. 59	Meeting Minute		
4	New World Construction Co Ltd	00069935	12-Aug-2020 12:23	Yumi Chan Yui Mei	18102 - DCS User (Distribution) - NWCON_Budget Co...	18102	118752	28-Jul-2020	Hip Seng Builders Ltd	Distribution	Internal Meeting No. 58	Meeting Minute		
5	Hip Seng Builders Ltd	00067802	29-Jul-2020 09:55	Yumi Chan Yui Mei	18102 - DCS User (Distribution) - NWCON_BIM_18102...	18102	118061	24-Jul-2020	Hip Seng Builders Ltd	Distribution	Internal Meeting No. 57	Meeting Minute		
6	Rory Ltd	00064291	07-Jul-2020 17:40	Yumi Chan Yui Mei	18102 - DCS User (Distribution) - NWCON_Budget Co...	18102	116591	06-Jul-2020	Hip Seng Builders Ltd	Distribution	Internal Meeting No. 56	Meeting Minute		

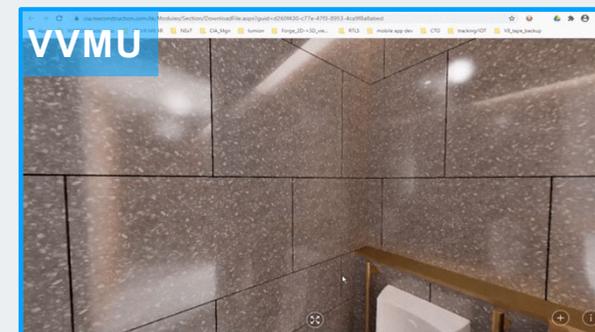


Company	Subject	Zone	Anticipated Date of Response	Created By	Issued By	Issued	Modified	Comment	Status	States	Action
World Trucon Management Co Ltd	Point Load Test Schedule (Chun Sing Batch 21)	A3	19-Mar-2019	Wilson Lau Tsz Tai	Victor Ng Chi Yung	05-Mar-2019	22-Mar-2019	-0(-) A1(-) -0(-) -0(-)	Pending for identification		
World Trucon Management Co Ltd	Confirmation of Test Schedule for GI Works at	FB	11-Mar-2019	Wheley The Shing Wang	Victor Ng Chi Yung	25-Feb-2019	22-Mar-2019	-0(-) A1(-) -0(-) -0(-)	Pending for identification		



Quantity Take-off

Column	Level	Setting	Mark	Beam Type	Concrete Grade	Length (m) [L]	Width (m) [W]	Height (m) [H]	Vol
Structural Steel	MF	MF_AW1_A21	00022027	100x100	C40	2.7	0.5	0.8	0.98
Structural Steel	MF	MF_AW101	00008140A	100x100	C40	6.75	1	0.8	5.40
Structural Steel	MF	MF_AW101	00008140A	100x100	C40	6	0.5	1	3.00
Structural Steel	MF	MF_AW1_A21	000124817	100x100	C40	3.84	1	1.2	4.61
Steel	MF	MF_AW1_A21	000041612	100x100	C40	13.57	1	0.8	10.86
Steel	MF	MF_AW1_A21	00004161A	100x100	C40	1.9	1.9	1.2	4.21
Steel	MF	MF_AW1_A21	00004161A	100x100	C40	7.4	1.9	1.2	17.88



Benefits - Productivity

Improve productivity by :

- e-workflow

Traditional Output:

3 Mandays administrative time for 1 submission/ approval cycle

At least 4 parties (Owner, Main Contractor, Subcontractor and consultant at different location for handling

CIA platform : 1 Manday administrative time for 1 submission/ approval cycle

Total Saved Mandays : 8,376 as at 21/10/2020 (project lapsed for 2 years)

SkyCity project total issued 4,188 workflow (RFI, TSF, MSS and SSF) as at 21/10/2020, using digitalized workflow.

Total Saved Manpower : 16 document administrators per year

- cost saving on paper base document management: 151k
- cost saving on accessing paper base document archive: 70k
- cost saving on printing facilities: 140k

(Data Sources : <https://constructible.trimble.com/construction-industry/5-ways-paper-based-construction-files-are-costing-you>)

Improve productivity by :

- Online BIM Support

Video : <https://youtu.be/dUItVTmBCxI>

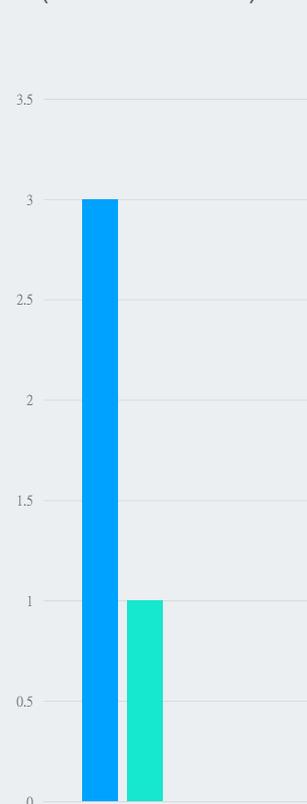
Traditional Method : View BIM Model via designated software, hardware & skill set, file difficult to transfer in project team, view BIM model with required license

Work with CIA :

1. no-learning-curve to access, on any devices w/ network
2. Enable QS to extract quantities in professional format
➔ Reduces 90% of time for Quantity take-off by CIA
3. Enable engineers to examine design and workability
4. 3D meeting (online War-room) from anywhere

Live review on CIA : <https://youtu.be/X8leMVIInna4>

Manday Comparison
(Per submission)

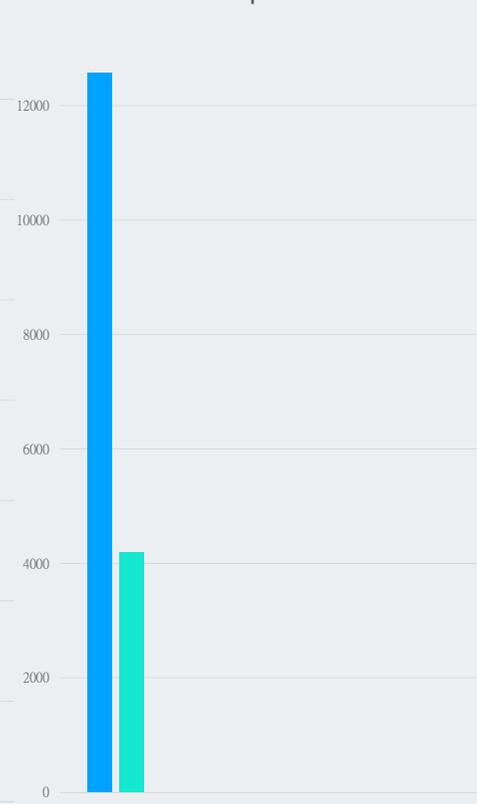


Document
Sharing &
Filing

■ Traditional Project

■ Digitalized Project

Total Saved Manday
Comparison



Total
Saved
Manday



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Benefits – Lowering Learning Curve for Frontline Staff

Increasing Safety and Quality Coefficient:

Media-rich contents for frontline workforce to accustom and acquire guidance on :

1. Site Environment

View 360 Site Photo on CIA : <https://youtu.be/1SqPnj1JsFo>

View 3D Scan on CIA : <https://youtu.be/vEaDQg4pr6Y>

2. Construction methodology and safety provisions

BIM Simulation : https://youtu.be/yNrrrWx_vo8

3. Envisioning Target Building Quality in super high fidelity 360 imaging

VVMU : <https://youtu.be/xjK5CaVuJmU>

4. QR code drawing back tracking up-to-date digital record

Video : <https://youtu.be/BObnHzbMimM>

VVMU



3D Scan



Benefits - Environmental

Improve Environmental Performance by :

➤ DCS and e-Workflow

Paperless: 0 paper / Fin Year

Average Energy consumption for paper printing per project: Reduced 98,583 MJ

Average CO2 Emissions to Air per project: Reduced 5968.63 KG CO2eq

(Data Sources : Group Sustainability Report)

CO2 emission saved for virtual meeting / workshop

Reduced CO2 emission : 112.7 KG / Meeting* , 1352.4 KG / Year

**Assumption: Average 0.37545 KG CO2-e / Passenger / KM, 30KM traveling distance / one person, 10 participants each meeting and 12 meeting per year. (Data sources :*

<http://www.cityu.edu.hk/aerc/CFT/booklet/Guidelines%20TC.pdf>)



Construction Information Anywhere

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