



**Bentley**<sup>®</sup>

**PCSS**<sup>®</sup>  
The Project Management Specialist

**4D**  
The Advanced  
Digital  
Construction

# **BUILDING THE FUTURE IN DIGITAL CONSTRUCTION SEQUENCING**

**27 Jun 2019**

**2:00pm - 5:45pm**

**The Singapore Contractors Association Ltd**

**No. 1 Bukit Merah Lane 2, Singapore 159760**

4D Construction Planning and Scheduling is the new way to enable digital creation of the approved project delivery approach. It facilitated through the development of specific project plans and schedules that combine 3D data and time data into a single integrated model.

In other words, 4D puts the project plan into real context, requiring the deployment of a clearly specified 3D Construction Planning and Scheduling process together to improve the delivery team's ability to identify, manage and remove the multiple and compounding instances of waste caused by errors, confusion, and inefficiency in the planning and execution of projects.

# OBJECTIVES

The focus and purpose of 4D Construction Planning and Scheduling is to enrich the planning and scheduling process to achieve improved communications and stakeholder participation. It enables the creation of a robust delivery approach that can be understood, validated and reliably implemented by the project delivery team. Owners should insist on seeing a 4D Plan as part of the Contractor's BIM Execution Plan and the 4D Plan needs to include more than just a series of animations. It also generates visual reporting of construction schedule through the entire life of the project, including jobsite status updates.

Synchro 4D Planning tool provides Real-Time Advanced Graphic Simulations, Real-Time Collaboration, Dynamic Communications, Baseline-Actual Comparison, Lean/ BIM Integration, Dynamic & Static Clash Detection and Optimize Delivery Approach. For owners, the bottom line is simple – without 4D they are missing a big opportunity to save time and money altogether.

# EXAMPLE OF BENEFITS

- Reduction in lost time in the project execution due to - Time lost in dealing with rework in the field caused by unplanned workspace clashes; Time lost in the field due to extra meetings convened to “talk through” the confusion in the schedule; Time lost in the field due to the occurrence of unplanned safety events that could have been avoided
- Reduction in mistakes in the field caused by lack of needed information due to - Assuming a construction plan can be developed based solely on review of the design model; Assuming the initial schedule forecast is sufficiently accurate based on unverified/ unreview inputs; Assuming a construction sequence is flawless without a thorough review by all stakeholders of site logistics and temporary works
- Reduction in the margins (cost avoidance) by removing unnecessary conservatism due to - Additional “float” in scheduled activities to account for “assumed delays”; Additional space allocated for activities to account for the possibility of congestion; Additional time for contractors to be on site

# PROGRAMME

| Time   | Program                                     | Speaker             | Objective  |
|--------|---|---------------------|--|
| 1:30pm | Registration                                |                     |  |
| 2:00pm | 4D Planning is Future of Project Management | Andy Tiong          | Give a clear picture of what 4D planning is and how can it be applied to the projects          |
| 3:30pm | Tea Break                                   |                     |  |
| 3:50pm | 4D Planning in Synchro Software             | Khairun and Stanley | Demonstrate how Synchro works to manage project more effectively comparing to conventional way |
| 5:00pm | Q&A   |                     |  |
| 5:45pm | End   |                     |  |

# TARGET AUDIENCE

Planners, BIM Coordinator/ Specialist/ Manager, Project Manager/ Director/ Owner

## SPEAKERS' PROFILE

### **Andy Tiong Meng Jun**

Andy Tiong Meng Jun is the Project Planning Management Consultant with PCSS Consultancy since December 2007.

Being a certified Primavera Project Management Training Trainer, he has delivered training to various organizations, such as Malaysia LNG Sdn Bhd, Mcdermott (Sarawak) Sdn Bhd, Brunei Shell, Brunei LNG Sdn Bhd, Dammit Worley Parson (Brunei) Sdn Bhd, Labuan Shipyard Sdn Bhd, Brooke Dockyard Engineering Works & Construction, Petrokon Utama (Brunei) Sdn Bhd, Shapadu (Selangor) Sdn Bhd, Sapuracrest Petroleum Bhd, Shin Yang Sdn Bhd, Dayang Enterprise Sdn Bhd, Sahib (Brunei) Sdn Bhd and Adenin Works & Engineering (Brunei) Sdn Bhd, just to name a few.

Implementing solutions to ensure clients maintain a distinct competitive advantage by continually delivering successful project, he is also able to provide a range of professional project management systems and services to ensure client projects are managed successfully throughout the entire project life cycle, reducing the risk of project costs and schedule overruns.

Other professional skills include establishing a PMO into client organization, making it an integral part of client's organizational culture; developed project management processes and procedures; project management auditing; project planning, monitoring and scheduling services; holding a project planning workshop and conducting work scoping/ site visit to verify scope and identify any potential operational problem.

He is also involved in RUBY Petronas (Vietnam) FPSO PLEM construction project – producing Project Master Schedule & Manpower Loading for various projects during tender stage; assisting respective Sub-contractor to compile and generate their work master schedule for PLEM project; directing and co-ordinating planning and scheduling activities; scheduling and schedule performance monitoring (daily manpower reports and productivity performance reports); attends weekly meeting; close monitoring on CPM and assisting Project Manager on critical activities & issues; and creating a standard threshold for project schedule.