



# Traditional Completions vs Asset55 Completions Enablement

# Asset55<sup>TM</sup>

The world's foremost provider of flange management and construction solutions software to the global energy market.

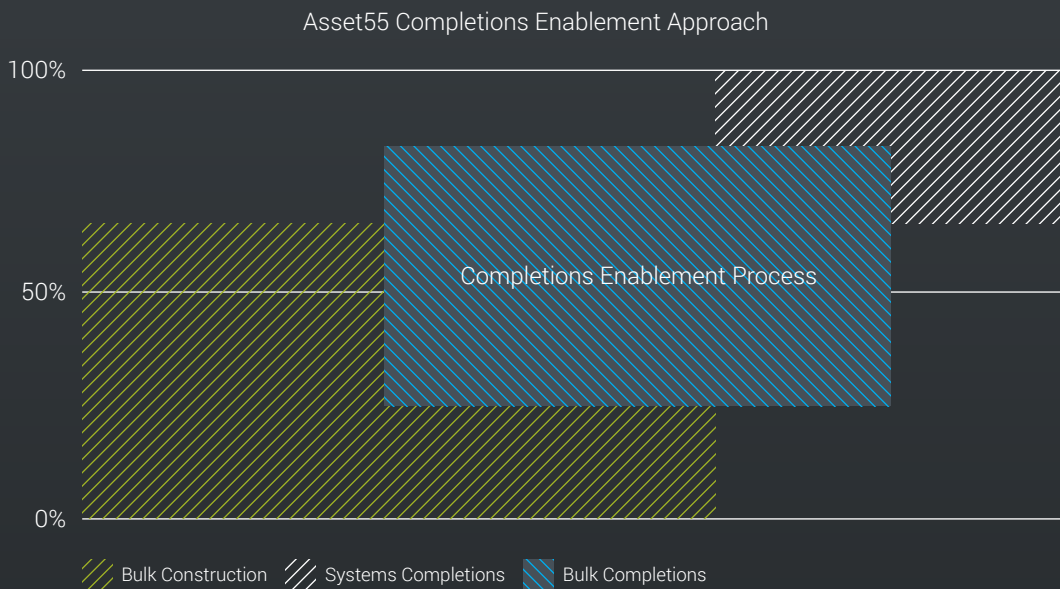
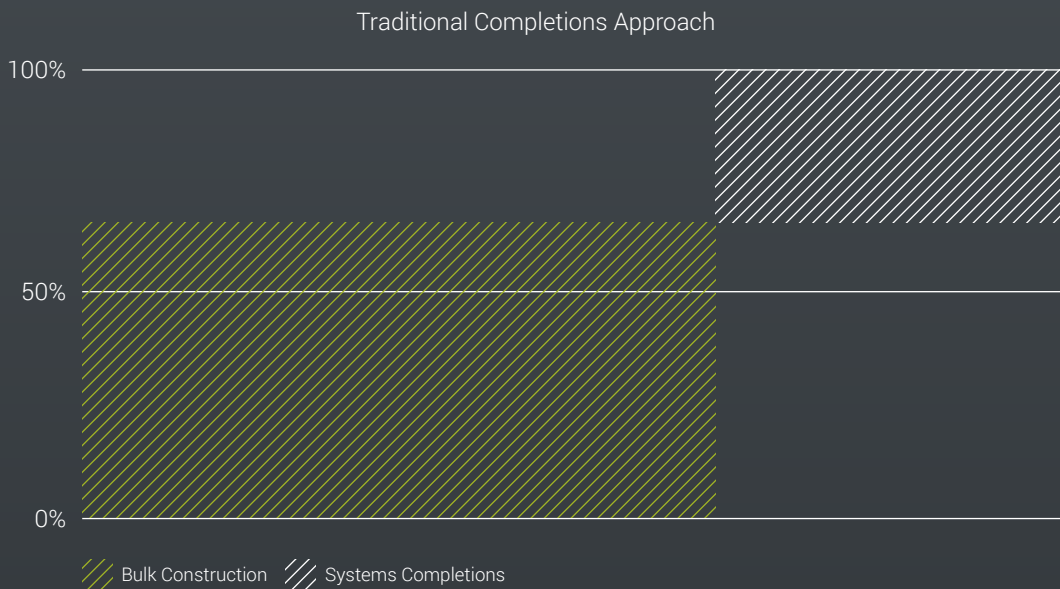


# Traditional Completions vs Asset55 Completions Enablement

## Industry Challenge

Project delivery challenges within the oil and gas industry have been on the rise. Many projects have experienced significant cost and schedule overruns, as well as significant under performance of asset upon start-up. Technology brings about the opportunity to enable project delivery outcomes to be both improved and optimised. Of critical importance is aligning technology and processes proven to improve delivery outcomes. Our solutions optimise project delivery through a process called *completions enablement*. Traditional delivery methods begin with a bulk construction phase and transition to systems-based completions at around 65% complete. In contrast, our completions enablement approach opens up completions opportunities as early as 25% complete and focuses on bulk liquidation of completions activities.

## Traditional Completions Approach vs Asset55 Completions Enablement Process





# Traditional Completions vs Asset55 Completions Enablement



## Safety

Safety is the primary focus as we strive to deliver projects incident and injury free. Improvements in safety programs, project culture, and safety driven initiatives have helped improve safety outcomes. However, still too often people suffer serious injury or fatality on projects. Does the traditional approach to project delivery increase the likelihood of serious safety incidents as projects near completion?

### Traditional

- Increased schedule pressure >65% complete
- Increase resources to catch up schedule
- Increased volume of activities relating to stored energy
- Increased safety risk
- Increased likelihood of permit to work

### Asset55 Approach

- Mitigate schedule pressure through early capitalisation on completions opportunities creating predictability
- Reduce resource peaks through proactive completions capitalisation
- Spread stored energy activities over longer duration reducing volume peaks
- Decrease safety risk
- Decreased likelihood of permit to work



## Quality

Quality and schedule are directly linked. Improvements in the quality of build undoubtedly leads to schedule reduction. Projects are typically reliant upon contractor reported status, which is not visible until the completions inspection regime commences.

### Traditional

- Completions inspections begin >65% complete
- Contractor reporting commercially driven and often over stated
- Complete the minimal to get paid, drive late change orders

### Asset55 Approach

- Completions inspections begin 25% complete
- Supports validation of contractor reported status
- Drives a quality of build philosophy



## Discovery Work

Discovery work is the identification of incomplete scopes that often occur as the inspection regime commences. The later it is identified, the higher the likelihood that it will create negative schedule impact. This rework has detrimental impact on quality, cost and schedule.

### Traditional

- Not finished first time
- Missing materials
- Engineering change
- Late identification of discovery work
- Systemic problems
- Impacts schedules or creates carry over work

### Asset55 Approach

- Focus is to install right first time
- Earlier identification of discovery work
- Drive behavioural change so issues do not come systemic
- Reduced likelihood of schedule impact



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## Contractor Reporting Validation

Traditional approaches to project delivery create a reliance on contractor reported status. This can be time consuming to validate, and in most cases it simply isn't validated. This leads to the likelihood of over reporting that isn't fully understood until the latter stages of projects. By this time, it is too late to enable corrective action.

### Traditional

- Project controls
- Minimal oversight / verification
- Reliant on contractor reporting
- Little opportunity for intervention

### Asset55 Approach

- Visualisation
- Completions Inspection regime validates contractor reporting
- Confidence in project status
- Creates opportunity for intervention / early warning signs



## Productivity

Poor productivity has affected many projects in recent years, resulting in schedule extensions and cost overruns. The change in focus from bulk construction to systems-based completions can lead to decreased field productivity. Completions enablement identifies opportunities in real time and opens work fronts. This allows all disciplines to be successful. It focuses on what can be done, rather than what can't, and enables project owners to challenge contractor behaviour to drive field productivity.

### Traditional

- System focused completion can have negative impacts to field productivity
- Bulk construction opportunities restricted post 65% complete
- Completions manhours always under estimated

### Asset55 Approach

- Proven to improve field productivity
- Reduce overall resources
- Open downstream activities sooner
- Supports all disciplines / contractors to be successful



## Schedule

Maintaining project schedules is critical to a project's success. Invariably, schedule delays are not recognised until it's too late to take the opportunity to mitigate. A key contributor is lack of validation of contractor reported status. Over reporting is usually identified once the completion process is initiated, which is why it is critical to begin these activities at the earliest point.

### Traditional

- Schedule creep / delays
- Reactive completions methodology
- Lack of intervention opportunity
- Schedule overruns >30% are common

### Asset55 Approach

- Reduce schedule
- Create schedule Predictability
- Early warning signs
- Proactive completions methodology
- Proven to reduce schedules >3 months when implemented reactively



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## Start-Up Assurance

Problems with start-up can seriously impact the reaching of production targets. In recent years, many projects have experienced problems at start-up, regularly adding significant time to the schedule. While some causes may remain hidden, the majority are related to quality of build, the scrutiny of the inspection process, and schedule pressure as the projects near completion. This often leads to corners being cut.

### Traditional

- Problems with start-up
- Commissioning identified problems
- Impacts production

### Asset55 Approach

- Increases start-up effectiveness
- Enables commissioning scopes to start earlier
- Drives quality of build process



## Visualisation

Advancements in design systems now means all major projects are designed using a 3D model. However, very few projects utilise these models effectively during construction. Our technology converts the engineering model into a highly valuable, extremely powerful resource through our model enrichment process. Visualising project status as well as opportunities and constraints, yields significant value to the project through creating the ability to act at the earliest stage.

### Traditional

- Little or no status visibility with a 3D model
- Charts & graphs
- Spreadsheets
- No single source of truth

### Asset55 Approach

- Full visibility in multiple contexts
- Improved understanding of project status and opportunities
- Centralised control
- Full transparency
- Improved communication & collaboration
- Improves validation effectiveness



## Analysis

Traditional approaches that identify completions opportunities are reliant upon both the skills of individuals and manually checking where opportunities may exist. This is both time intensive and counter-productive. The ability to automate analytics to identify and communicate completions opportunities and constraints enables full site teams to have full understanding and drive effective outcomes.

### Traditional

- Manual process to identify completions opportunities
- Time intensive
- Reliant on individual skills and capability

### Asset55 Approach

- Fully automated analytics presented in both data & visual
- Efficient for user
- Creates standardisation for continuous improvement



# Asset55™

The global leader in Construction Solutions technology, targeted towards completions enablement and model enrichment. Get in touch today to schedule a demonstration of our software.

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