

▸ DEBOTTLENECK PRODUCTION FACILITIES – ABQAIQ
GOSP-(2, 3, 5, 6)

Design Workshop – ERM

Digital & Innovation Team

Thursday, 15th August 2024

System Overview

The diagram features a dark blue background with two curved lines, one yellow and one teal, intersecting on the left. Five rounded rectangular boxes are arranged vertically in the center, each containing a text label. To the right of each box is a large, light gray arrow pointing horizontally to the right. The labels in the boxes are: 'System Overview', 'Schedule / P6 import / Excel import', 'Material Management – PO Status/Exiting Systems', 'Interface with P6', and 'Progress Calculation'.

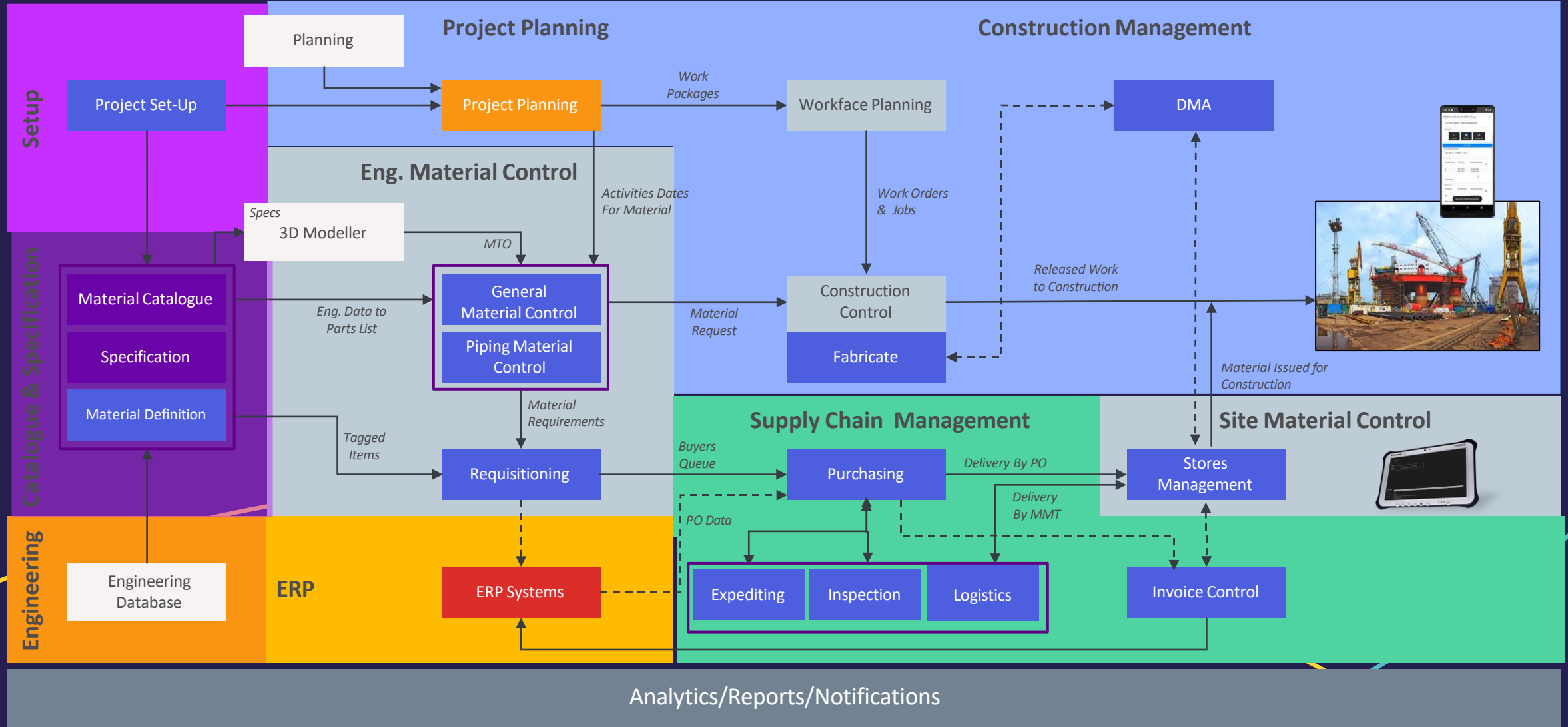
Schedule / P6 import /
Excel import

Material Management
– PO Status/Exiting
Systems

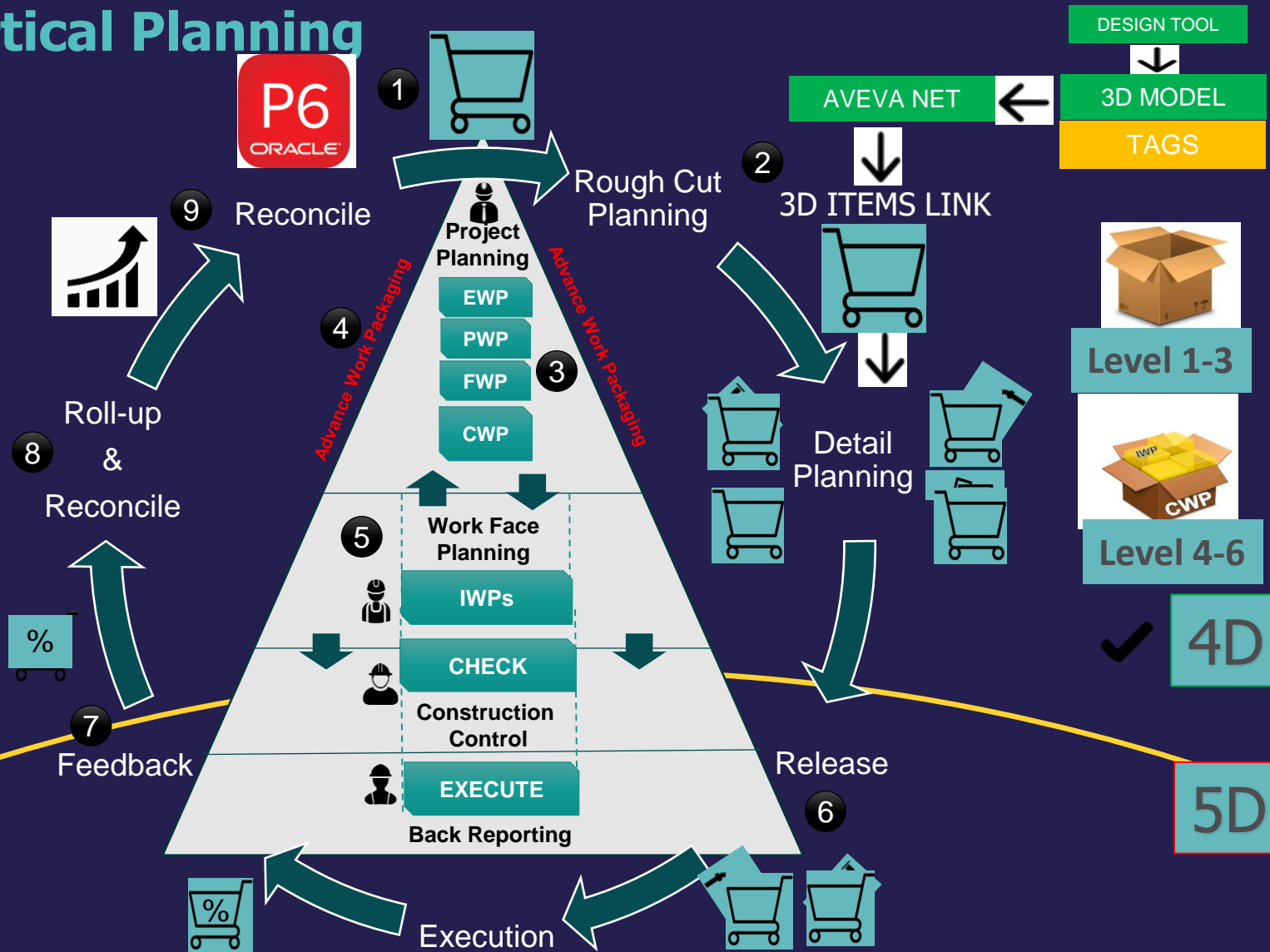
Interface with P6

Progress Calculation

Project Execution Process Lifecycle



► Vertical Planning



1. Import Schedule P6 Plan
2. Import 3D Model & Items AUTOKITTING
3. Check Sequence & create scope of EWP-CWP
4. AWP Relationships between Work Packages
5. Detailed Plan create scope of IWPs (Contractor Task)
6. Send detailed schedule back and reconcile
7. Release jobs for execution
8. Collect feedback (actual data)
9. Roll-up progress and status
10. Send actual data over to P6



Construction Management

- ▶ Effective work packaging in line with Advanced Work Packaging – “Beginning with the End in Mind”
- ▶ Allows 4D simulations and Workface Planning
- ▶ Engineering and Material readiness analysis to ensure that construction teams don’t mobilize too early
- ▶ Configurable visualization support for Project Controls
- ▶ Project status and Progress capturing and monitoring
- ▶ Planning data can be loaded from Primavera P6 or Microsoft Project

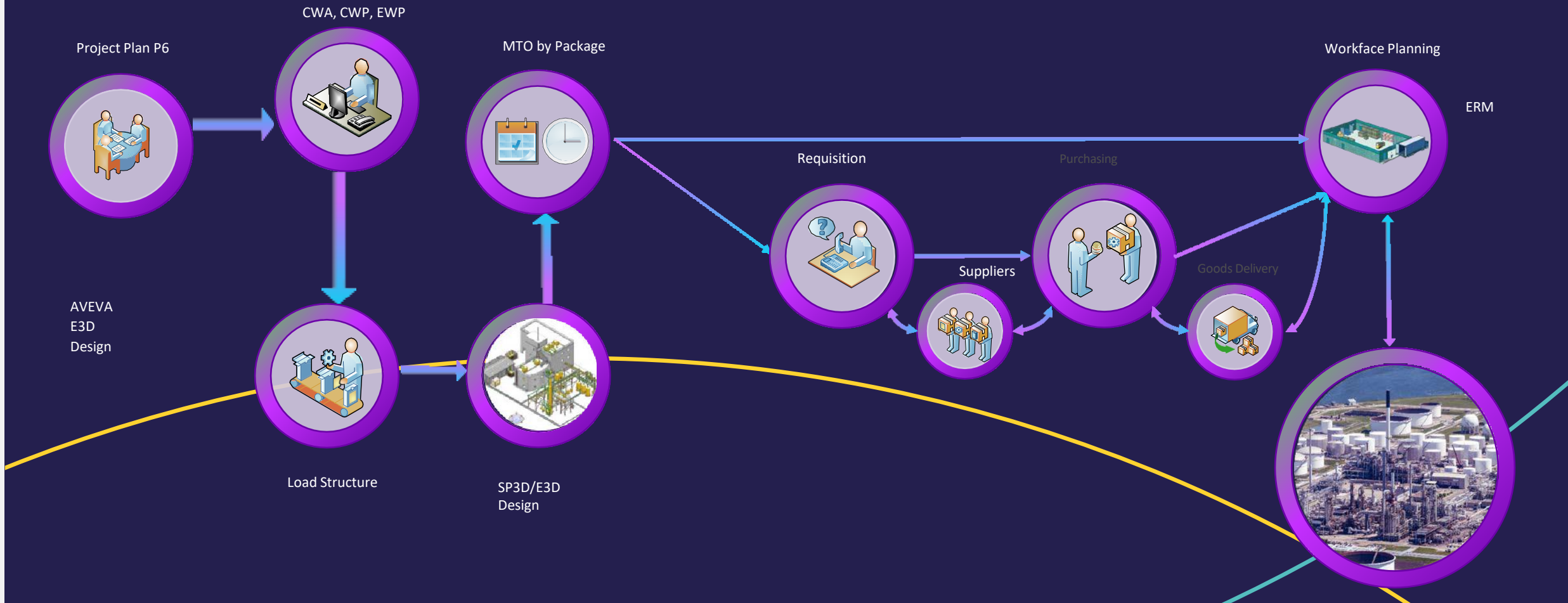


Materials Management

- ▶ Engineering Material Control manages the process up to requisitioning. It is the link between Engineering/Design and Procurement
- ▶ Intelligently feeding procurement with information about what to buy with right quantity
- ▶ Actively monitoring change in design and impact on procurement
- ▶ Material requisitions can be loaded into 3rd party ERP such as SAP, Oracle
- ▶ Reduced risk in procurement process, minimizing incorrect material orders and subsequent and unnecessary shipping



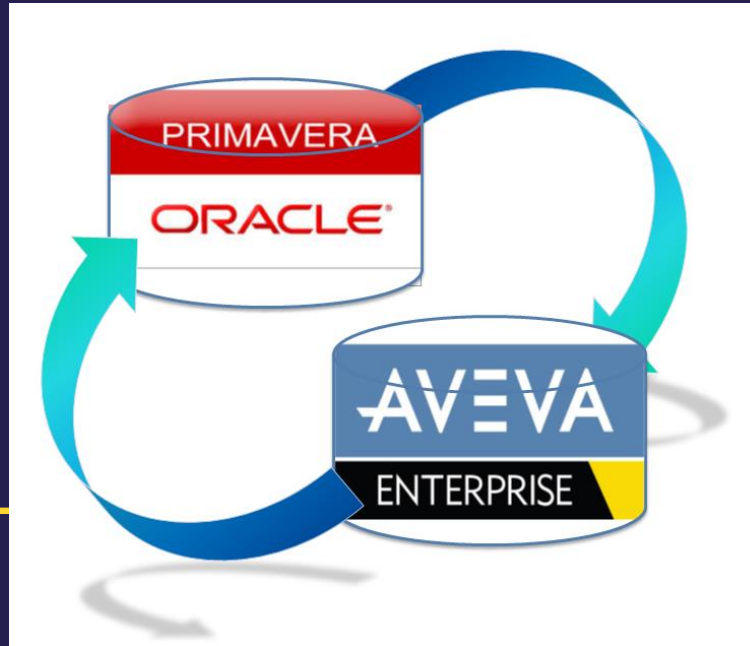
AVEVA Enterprise Resource Management, Design Tools



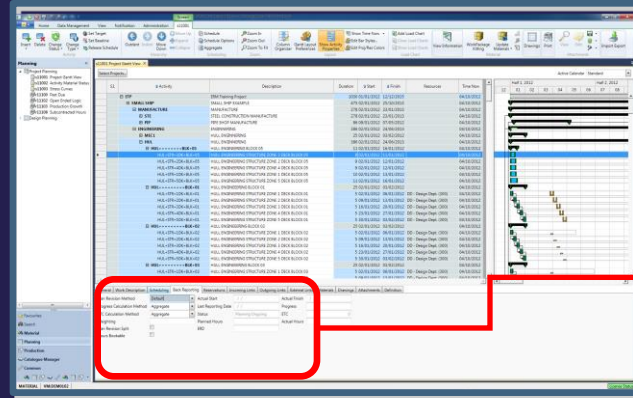
Integration with Project Planning data from/to other systems

- 1. PRIMAVERA
 - Powerful Web Service Interface & File Exchange (P6 .xml)
- 2. MS PROJECT
 - File Exchange (MSP .xml)
- 3. CSV
 - File Exchange (.csv)
- 4. BULK IMPORT
 - Staging area (.csv)

P6 – Integration – Web API



Progress Calculation Methods



Note that within ERM Work Packages, Work Orders & Jobs can all be released and progressed.
So all methods are applicable at these planning levels.

Note: This function exists in all Project, Design & Production Planning

General	Work Description	Scheduling	Back Reporting	Reservations	Incoming Links	Outgoing Links	External Links	Materials	Drawings	Attachments	Definition
Plan Revision Method	Default		Actual Start	//		Actual Finish	//				
Progress Calculation Method	Aggregate		Last Reporting Date	//		Progress					
ETC Calculation Method	Aggregate		Status	Planning Ongoing		ETC		0			
Weighting			Planned Hours			Actual Hours					
Plan Revision Split			ERD								
Hours Bookable											

Progress Calculation Method	Aggregate	Last Reporting
Id		
ETC Calculation Method		
Weighting	0/100	
Plan Revision Split	50/100	
Hours Bookable	Actual Hours / EAC	
	Aggregate	
	Fabrication Completion	
	Installed Material Items	
	Labour Completion	
	Level of Effort	
	Manual Assessment	
	Progress Milestones	

10 records loaded.

- 0 -100 = With an Actual Start date it stays at 0% until it goes to 100% with an Actual Finish date.
- 50 -100 = With an Actual Start date it goes straight to 50% until it goes to 100% with an Actual Finish date.
- Actual Hours / EAC = when progress is based on Actual hours and EAC so if there is 50 Actual Hours / (50 actual + 150 estimate to complete) = 25%.
- Aggregate = collect Progress weight value from child activities
- Installed Material Items = [Explained on further slides](#)
- Fabricate Completion = [Explained on further slides](#)
- Labor Completion = [Explained on further slides](#)
- Level of Effort = is based upon the internal system date (current date) and the budget. If a linear budget spread and current date is on day 3 of a 10 day Job, the progress is set to 30%.
- Manual Assessment = [Explained on further slides](#)
- Progress Milestone = [Explained on further slides](#)

List of requirement

- 1: P6 XML file – Export form P6 for ABQAIQ project
- 2: Resource list
- 3: Calendar list with holidays
- 4: Rules of Credit – If applicable for the project
- 4: Norms hours – if applicable for the project
- 5: Project Start date and finish Date as per P6 Schedule

Thank You

