



COLLABORATE14

TECHNOLOGY AND APPLICATIONS FORUM
FOR THE ORACLE COMMUNITY

#C14LV

Integrated Project Manufacturing

Session ID#: 14839

*Primavera P6, Oracle Projects and
Agile for Integrated Project
Manufacturing*

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O2Works LLC



REMINDER

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Introduction

Introduction and Overview



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Company Information

■ About O2Works

- E-Business Suite Service Provider
- Experienced Consultants
 - Implementations, Upgrades, Extensions



Booth 1238

■ About Powell Industries

- Engineered Solutions
- Control, Distribution and Management of Electrical Energy
- Industry Leader
 - Utilities
 - Oil & Gas
 - Mining
 - Commuter Railways



About Project Synergy

- 11.5.10 since 2006
 - Financials, Manufacturing, Projects
- 12.1.3 Re-implementation
- Business Process Design



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Agenda

- Discussion of High-Level Architecture
- Powell Project Structure
- Detailed Discussion of Key Integrations
- Lessons Learned
- Phase 2



The Integrated Solution

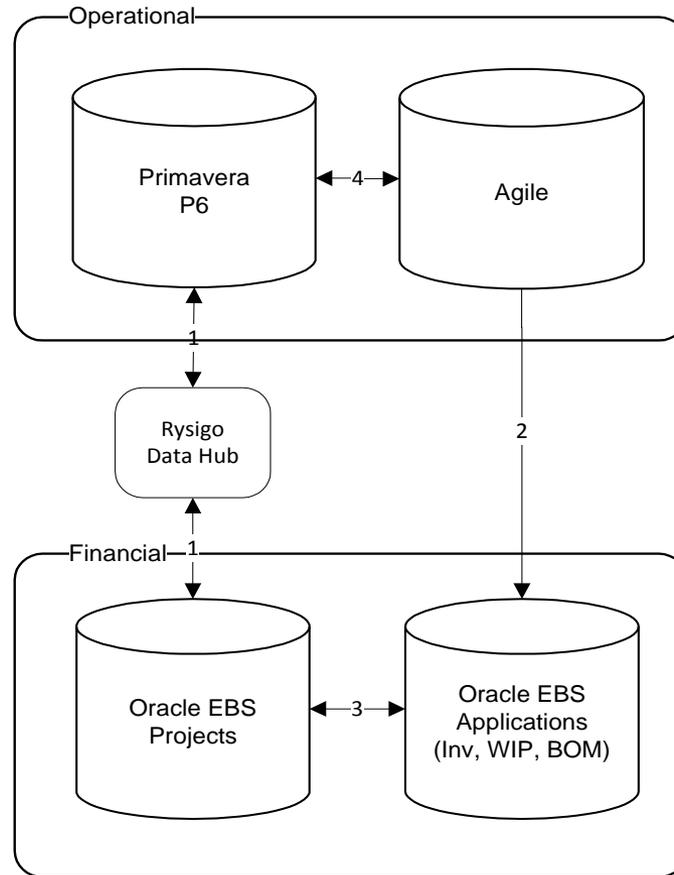
Integrated Systems Solution



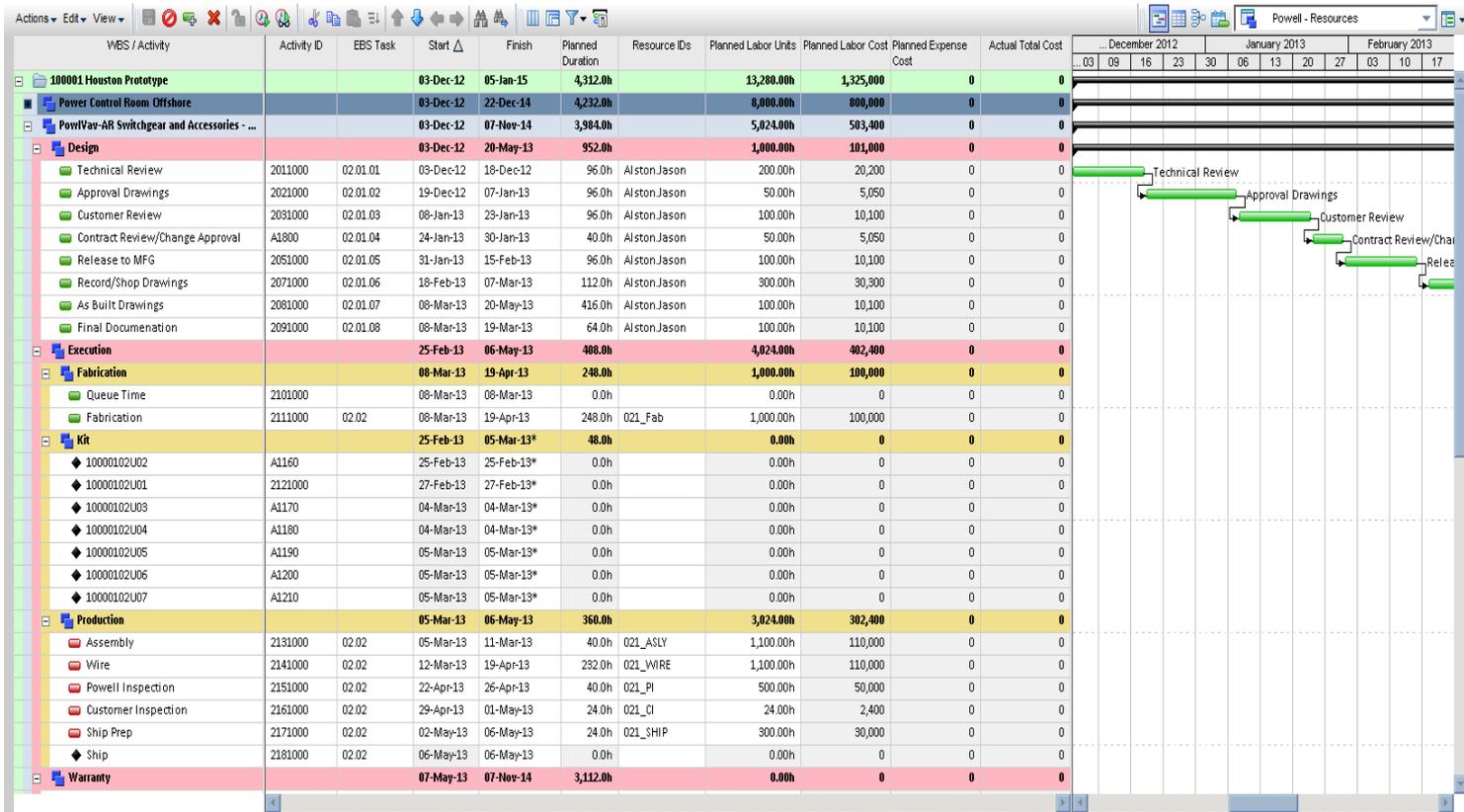
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High-Level System Overview



Project Structure

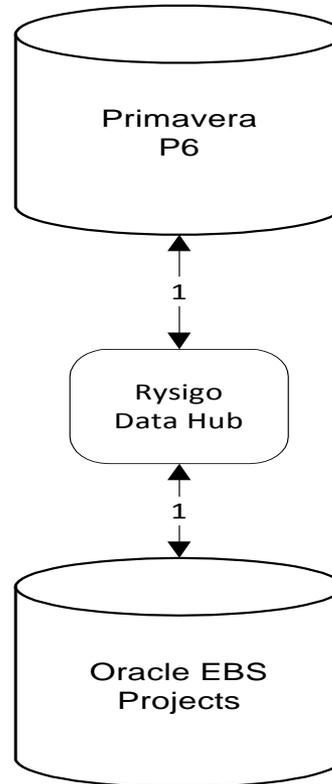


Project Structure

- Product 1
 - Design
 - Design Activity A
 - Design Activity B
 - Execution
 - Execution Activity
- Product 2



Integration 1 – P6/Oracle EBS Projects



Integration 1 – P6/Oracle EBS Projects

Production		05-Mar-13	30-Apr-13	40d				3,024h	302,400
Assembly	02.02	05-Mar-13	11-Mar-13	5d	Greg.Hill	021_ASLY	Assembly	1,100h	110,000
Material (Cost Collector)	02.02	05-Mar-13	30-Apr-13	40d	Greg.Hill	021_MTL	021_Material	0h	0

Resource ID Name	Planned Units	Actual Units	Remaining Units	Remaining Units/Time	Planned Cost	Actual Cost	Remaining Cost	At Completion Cost
021_ASLY - Assembly	1,100h	0h	1,100h	220h/d	110,000	0	110,000	110,000



Planned

Task Details
 Task Number: 02.02
 Task Name: Execution
 Actions: Current Working Version, Go, Add to Bookmark

Task Scheduled Start: 25-Feb-2013
 Task Scheduled Finish: 30-Apr-2013
 Planned People Effort: 4024 Hours
 Planned Equipment Effort: 0 Hours

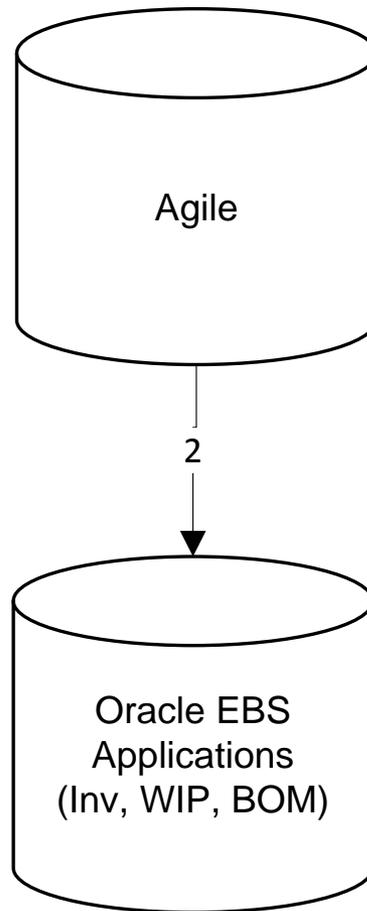
Views: Simple Search

View: Dates and Quantity, Go, Personalize

Task	Planning Resource	Scheduled Start	Scheduled Finish	UOM	Quantity		Burdened Cost		Actual	View
					Plan	Actual	Plan	Actual		
02.02	021_ASLY	25-Feb-2013	30-Apr-2013	Hours	1100		USD	110000.00		
02.02	021_FAB	25-Feb-2013	30-Apr-2013	Hours	1000		USD	100000.00		
02.02	021_INSP	25-Feb-2013	30-Apr-2013	Hours	824		USD	82400.00		
02.02	021_WIRE	25-Feb-2013	30-Apr-2013	Hours	1100		USD	110000.00		
02.02	Material	25-Feb-2013	30-Apr-2013	Currency	80000		USD	80000.00		



Integration 2 – Agile / Oracle EBS Apps



Integration 2 – Agile / Oracle EBS Apps

100005-03-1A Preliminary
Transformer • Transformer, Oil Filled, Three Phase... Unincorporated

Site: ALL Rev: Introductory Actions

Title Block Changes BOM Manufacturers Sites Relationships Where Used Attachments History

Page Two | Page Three

Save Cancel

* Number: 100005-03-1A 123

* Subclass: Transformer

Lifecycle Phase: Preliminary

* Description: TRANSFORMER,DRY TYPE,THREE PHASE,LOAD CENTER TRANSFORMER

Product Line(s):

Rev Incorp Date:

Rev Release Date:

Effectivity Date:

Part Category:

* Make / Buy: Buy

Default Lifecycle Phase for new items

EBS Short Description using Purchasing Category for this example

Subclass is used to classify Page 3 template where Part Category is for user's search



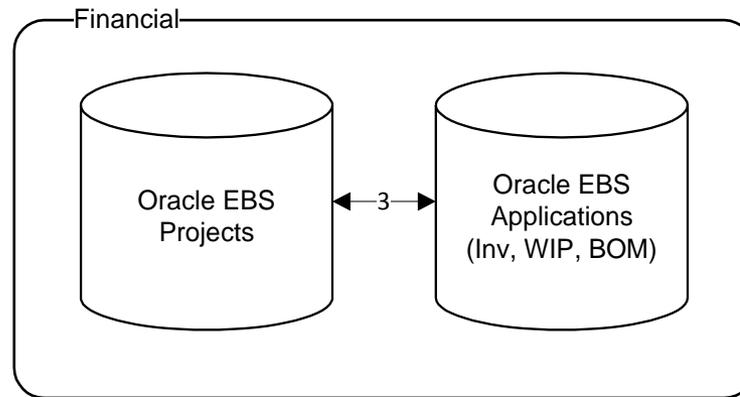
Integration 2 – Agile / Oracle EBS Apps

The screenshot shows the Oracle EBS BOM (Bill of Materials) interface for item 100001-01. The interface includes a search bar at the top with the value '100001-01'. Below the search bar, the item name '100001-01 Assembly - PCR ETO Item' is displayed, along with the status 'Preliminary' and 'Unincorporated'. A navigation bar contains tabs for 'Title Block', 'Changes', 'BOM', 'Manufacturers', 'Prices', 'Quality', 'Relationships', 'Where Used', 'Attachments', and 'History'. The 'BOM' tab is selected and highlighted with a red box and a circled '1'. Below the navigation bar, there are buttons for 'Add', 'Remove', 'Go To', 'Expanded Display', and 'More'. The 'Expanded Display' button is highlighted with a red box and a circled '3'. The main area displays a table of BOM items with columns for Item Number, Item Description, Item Lifecycle Ph, Item Rev, Qty, UOM, and Find Num. The table contains 33 rows of data, with the first few rows visible. A status bar at the bottom indicates '0 of 33 rows selected'.

Item Number	Item Description	Item Lifecycle Ph	Item Rev	Qty	UOM	Find Num
100001-01-1A	PANEL BOARD,AC THREE PHASE,CIRCUIT BREAKER,GE, SURFACE MOUNTED, 150A	Preliminary		1	EA	10
100001-01-2	PANEL BOARD,AC THREE PHASE,CIRCUIT BREAKER,GE, TYPE AQ, SURFACE MOUNT	Preliminary		1	EA	20
9T83B3872G80	XFMR/GE 30KVA,3PH,4W,480- HIGH EFFICIENCY	Preliminary		1	EA	30
SS232UNVE81U	INTERIOR FLUOR LIGHT, COOPER LIGHTING- METALUX, 120-277 VAC	Preliminary		17	EA	40
F32T8/SP41/ECO	FLUORESCENT LINEAR LAMP, GE LIGHTING, 4', T8, 32W,	Preliminary		34	EA	50
WGSS4FTB	WIRE GUARD, COOPER LIGHTING,	Preliminary		17	EA	60
20AC3	3-WAY LIGHT SWITCH, PASS & SEYMOUR 20A,	Preliminary		2	EA	70
LPX7DH	LIGHT,ACCESSORY,,INTERIOR EXIT SIGN WITH LIGHTS COMBO,	Preliminary		2	EA	80
2095	RECEPTACLE, GROUND FAULT, P&S,	Preliminary		3	EA	90
EFSC275-2023GFI	GFI FACTORY SEALED EXPLOSION PROOF, DUST-IGNITIONPROOF GROUND FAULT (Preliminary		2	EA	100
VMV7L2TWDM2/UNV1	LIGHT,HAZARDOUS,OUTDOOR,CROUSE-HINDS CHAMP VMV7L LED SERIES LIGHT, C	Preliminary		2	EA	110
9120	SMOKE DETECTOR, DUAL IONIZATION, BRK,	Preliminary		1	EA	120
RM4	SMOKE DETECTOR RELAY MODULE,	Preliminary		1	EA	130
100001-01-14	ANNUNCIATOR,WALL MOUNT,,AMETEK SERIES 90A, MODEL #90A-N4PB-3H-4W-NPE	Preliminary		1	EA	140
T-15EP	PHOTOCELL, CLASSIFIED, PMC,120VAC,	Preliminary		1	EA	150
13100G01-101S101SBB	POWL-VAC TEST CABINET	Preliminary		1	EA	160
13S20G01	UMBILICAL CORD ASSY FOR PVAC-AR TEST CAB	Preliminary		1	EA	170
100001-01-30	PANEL BOARD,DC,CIRCUIT BREAKER,GE, TYPE AE, SURFACE MOUNTED, 125A BAR	Preliminary		1	EA	180
THN2262DC	SAFETY SWITCH 600VDC 2P	Preliminary		1	EA	190
100001-01-40	PCR,PCR LEG,,11 LIFTING LUG 15" CHANNEL AND 16" BEAM (PN: 27176P04) WITH 3	Preliminary		4	EA	200



Integration 3 – EBS Projects / EBS Apps



Integration 3 – EBS Projects / EBS Apps

The screenshot shows the 'General' window for an activity. The 'Durations' section has a red box around the 'Planned Duration' field, which contains the value '0'. Other fields include 'Actual Duration', 'Remaining Duration', and 'At Completion Duration', all with values of '0'. The 'Status' section shows 'Started' and 'Finished' checkboxes, both with dates of '05-Mar-13' and '01-Mar-13' respectively. The 'Activity % Complete' is set to '0%'.

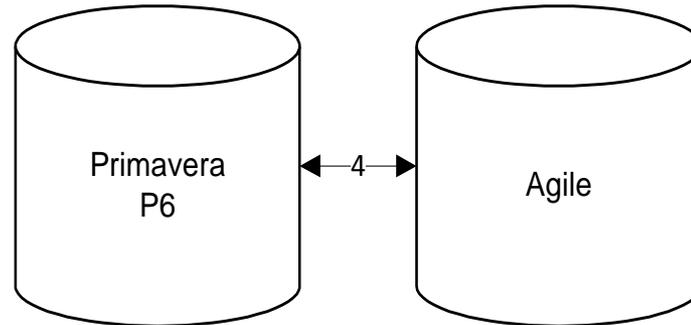


The screenshot shows the 'Routing Details' window for item 23232. The 'Operations' section is active, showing a table of operations with columns for 'Seq', 'Code', 'Department', 'Option Dependent', and 'Lead Time %'. The table contains five rows of data.

Seq	Code	Department	Option Dependent	Lead Time %
10	ASLY	MFG	<input checked="" type="checkbox"/>	0
20	WIRE	MFG	<input checked="" type="checkbox"/>	22.25
30	PI	MFG	<input checked="" type="checkbox"/>	44.51
40	CI	MFG	<input checked="" type="checkbox"/>	66.76
50	SHIP	MFG	<input checked="" type="checkbox"/>	88.92



Integration 4 – Primavera P6 / Agile



Integration 4 – Primavera P6 / Agile

Search Results » 100001 Houston Prototype » -02 PowlVac-AR Switchgear and Accessories - Type 2 Design

-02 PowlVac-AR Switchgear and Accessories - Type 2... **Not Started** 0%

Overall Status: ●●●●●
Schedule Status: ●●●●●
Cost Status: ●●●●●
Resource Status: ●●●●●
Quality Status: ●●●●●

Summary | Gantt Chart | Lock | Navigator | Actions

General Info | **Schedule** | Dependencies | Team | Content | Workflow | Collaboration | Attachments | History

Schedule Views: Base View * | Personalize

Add | Remove | Expand | Add Resources | Add Dependency | More

Name	Description	Owner	Project State	Type	Status	Start	End	Duration	Duration Type	Overall Status
Technical Review		Jason Alston	Active	Task	Not Started	03-Dec-2012 0	18-Dec-2012 0	12	Fixed	Off Track
Approval Drawings		Jason Alston	Active	Task	Not Started	19-Dec-2012 0	07-Jan-2013 0	14	Fixed	On Track
Customer Review		Jason Alston	Active	Task	Not Started	08-Jan-2013 0	23-Jan-2013 0	12	Fixed	On Track
Contract Review/Change Appr		Jason Alston	Active	Task	Not Started	24-Jan-2013 0	30-Jan-2013 0	5	Fixed	On Track
Release to MFG		Jason Alston	Active	Task	Not Started	31-Jan-2013 0	15-Feb-2013 0	12	Fixed	On Track
Record/Shop Drawings		Jason Alston	Active	Task	Not Started	18-Feb-2013 0	22-Mar-2013 0	25	Calculated	On Track
Mechanical Engineering		Justin Coletta	Active	Task	Not Started	18-Feb-2013 0	22-Mar-2013 0	25	Fixed	On Track
Wiring/Conduit Design		Jason Alston	Active	Task	Not Started	18-Feb-2013 0	22-Mar-2013 0	25	Fixed	On Track
As Built Drawings		Jason Alston	Active	Task	Not Started	22-Feb-2013 0	14-May-2013 0	58	Fixed	On Track
Final Documentation		Jason Alston	Active	Task	Not Started	22-Feb-2013 0	06-Mar-2013 0	9	Fixed	On Track

0 of 8 rows selected



Integration 4 – Primavera P6 / Agile

Approval Drawings » 100003-01D

100003-01D
Document • Document Package for 100003-01

Preliminary
Unincorporated

Site: ALL Rev: Introductory Actions

Title Block Changes BOM Sites Relationships Where Used Attachments History

Relationships Views: Base View Personalize

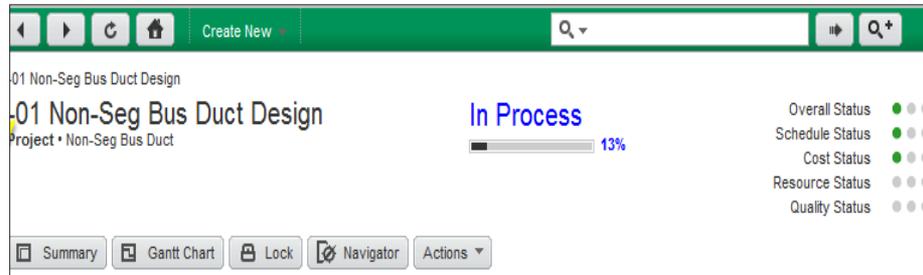
Add Remove Edit Rule More Save Cancel

Name	Description	Current Status	Rule	Type
-01 Type 439 Design(100003 Powell UK Prototype)	Type 439 Design	In Process		Project
Approval Drawings(100003 Powell UK Prototype)	01.01.02	Not Started	When 100003-01D is "Development", set Approval Drawings to "Complete"	Task
Record/Shop Drawings(100003 Powell UK Prototype)	01.01.06	Not Started	When 100003-01D is "Released", set Record/Shop Drawings to "Complete"	Task

0 of 3 rows selected



Integration 4 – Primavera P6 / Agile



Lessons Learned and Phase 2

- Lessons Learned
 - User understanding of downstream impacts.
 - Security of project synchronization
 - Synchronize Project Financials
 - Synchronize Project Schedule
- Phase 2
 - Automation of Synchronization



Jon Moll

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This is a subtitle or bulleted list



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