Data Integration Throughout the Project Lifecycle

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Agenda

- Common Challenges & Manage Risk

- Your Main Link for Performance Measurement - Control Accounts

- Data Integration throughout the cost management lifecycle Requirements

- Special Focus: Cost & Schedule Integration

- Methods for Transferring Data

- A Little about ARES Software and PRISM^{G2}

Common Challenges

Management

- Surprises and delays occur because our information is 3-4 weeks old by the time we get it

- Lack reliable view of performance across portfolios/enterprise

- We only know when a problem has already occurred … lack trend, risk information and change process

- Implementing a new system can take over a year and $1M+

Project Controls

- Need single point data entry for cost, schedule, and budget development

- Project controls is too busy collecting/validating data and generating reports to manage risk and provide insight

- Limited view into Changes and their impacts at the project and enterprise level

- SAP / Cost Management Integration must be painless and provide quick validation of data

*Projects that are more than 10% behind cost or schedule,
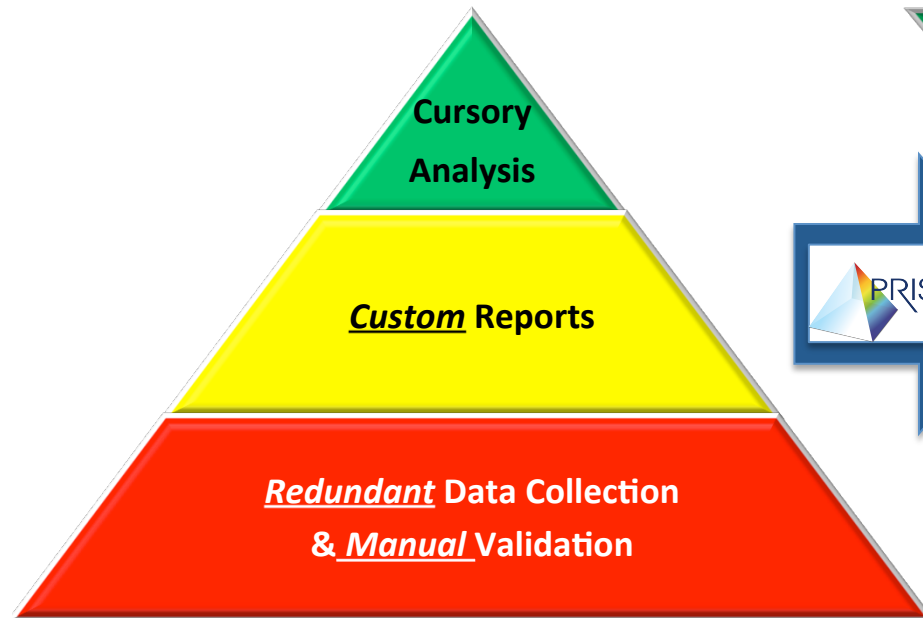rarely recover the losses … Key is to catch issues & trends EARLY!*
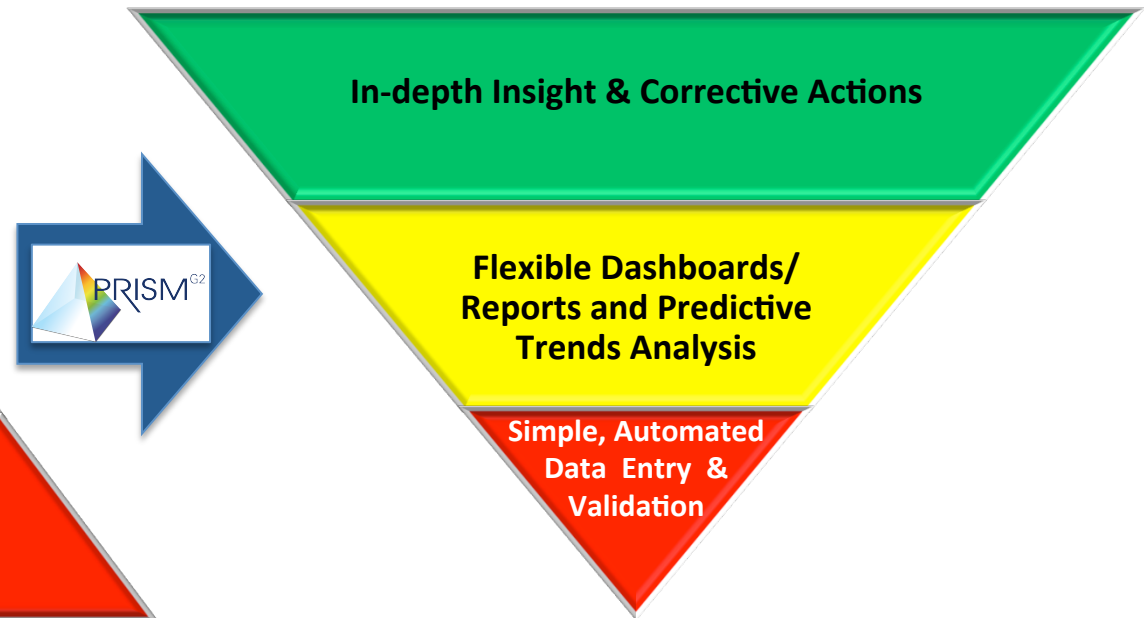
"Strategic" Project Controls

Percentage of Time Spent by Project Controls

"Current State"

Cursory Analysis

Custom Reports

Redundant Data Collection & *Manual* Validation

"50-80% of Project Controls' time spent manually validating data & producing reports"

"Desired State"

In-depth Insight & Corrective Actions

Flexible Dashboards/ Reports and Predictive Trends Analysis

Simple, Automated Data Entry & Validation

"Project Controls Eliminating Surprises & Saving the Company $MM Annually"

Manage Risk

- In spite of best efforts, projects fail
  - Schedule Issues
  - Cost Issues
  - Quality Issues

- To execute projects and programs with confidence
  - Acknowledge risk
  - Plan for risk
  - Assess & analyze the impact of risk
  - **Communicate risk**
  - Reduce exposure to risk

Project Initiation
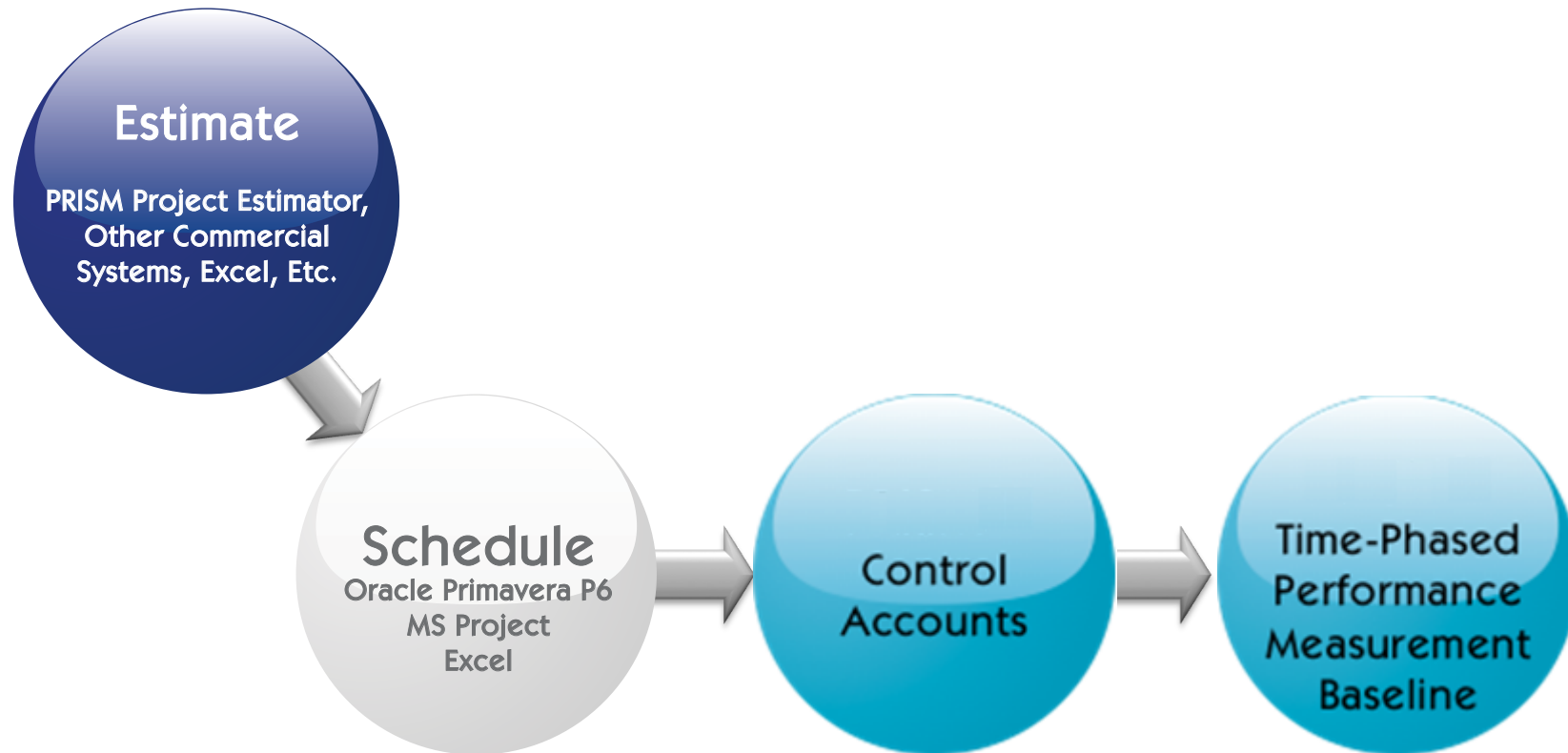## *Developing a Performance Measurement Baseline*

PRISM^{G2}

PRISM^{G2} **Performance Measurement Baseline**

- $, Hours, Quantities
- Control Accounts
- Spend Plan

Estimating

U.S. COST aspentech

- $, Hours, Quantities

ERP/Accounting

SAP ORACLE ORACLE JD EDWARDS ENTERPRISEONE

- WBS
- Contracts
- Rates

Scheduling

ORACLE PRIMAVERA Microsoft Office Project

- Activities
- Resources
- Codes
- WBS
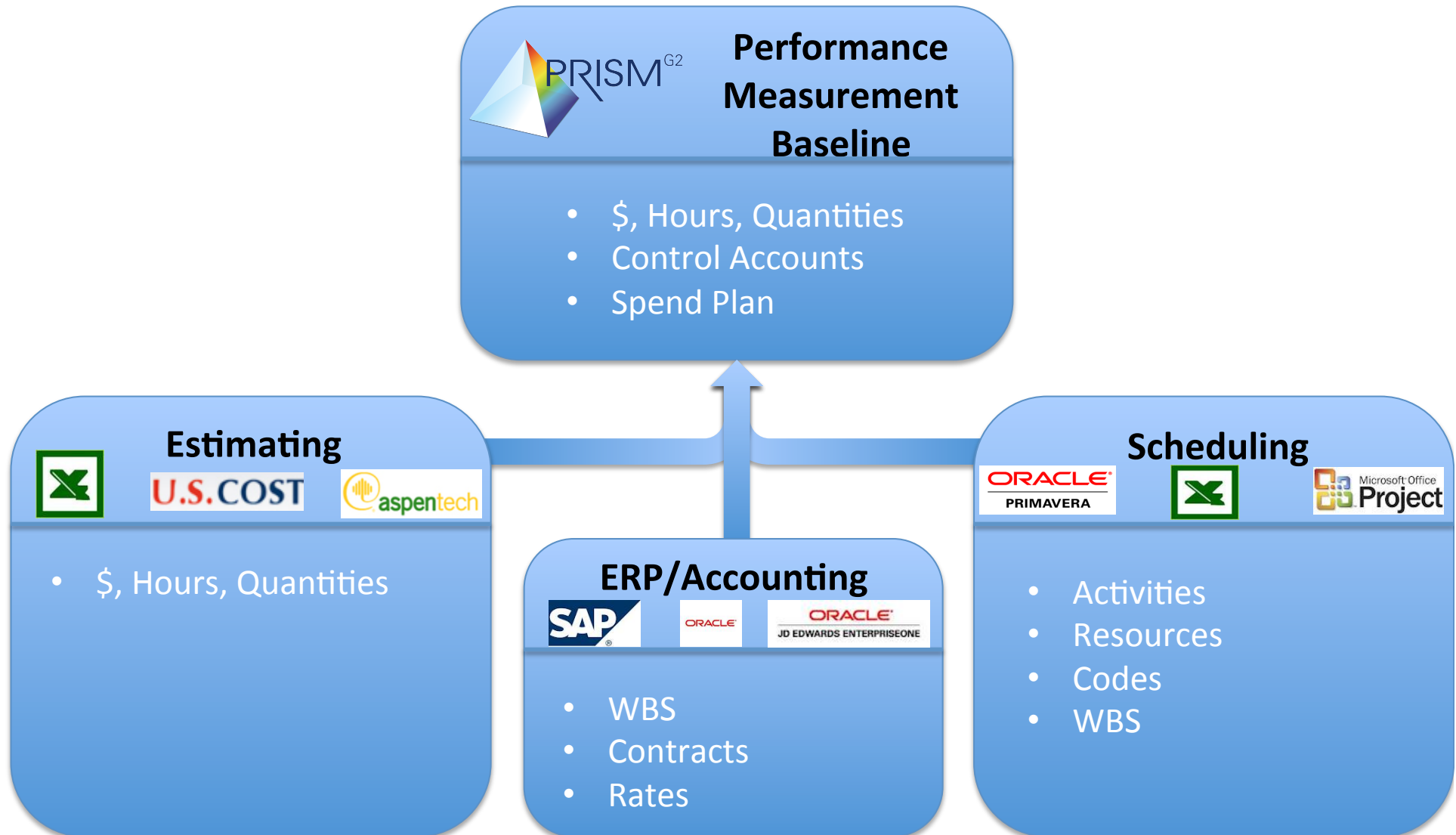
Cost / Schedule Integration

Method 1 – Cost Loading a Schedule

Estimate

PRISM Project Estimator, Other Commercial Systems, Excel, Etc.

Schedule
Oracle Primavera P6
MS Project
Excel

Control Accounts

Time-Phased Performance Measurement Baseline

Cost / Schedule Integration

Method 2 – Developing a "Time Phased Budget"
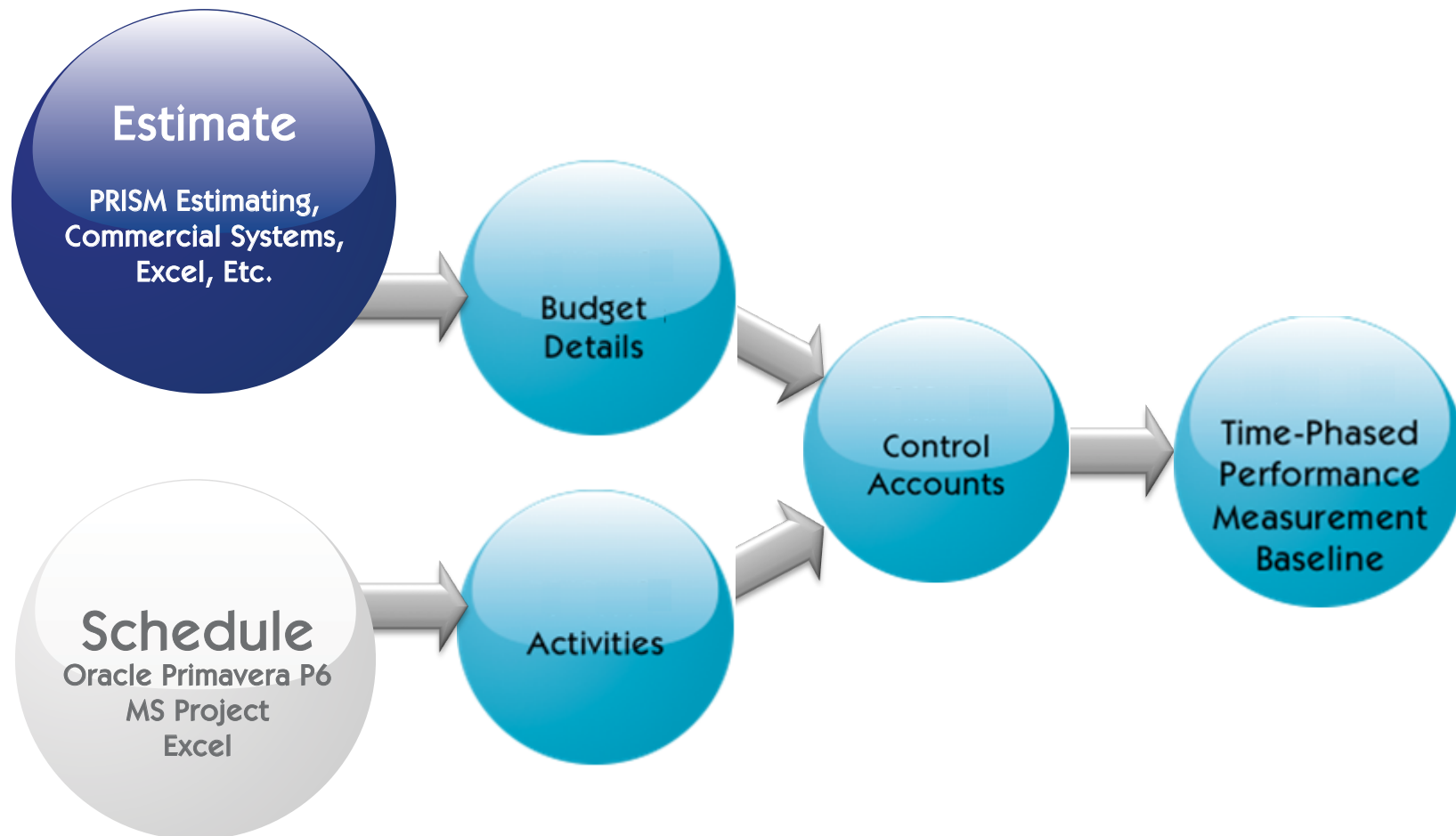
Integrate Cost & Schedule

Estimating

Control Account Management
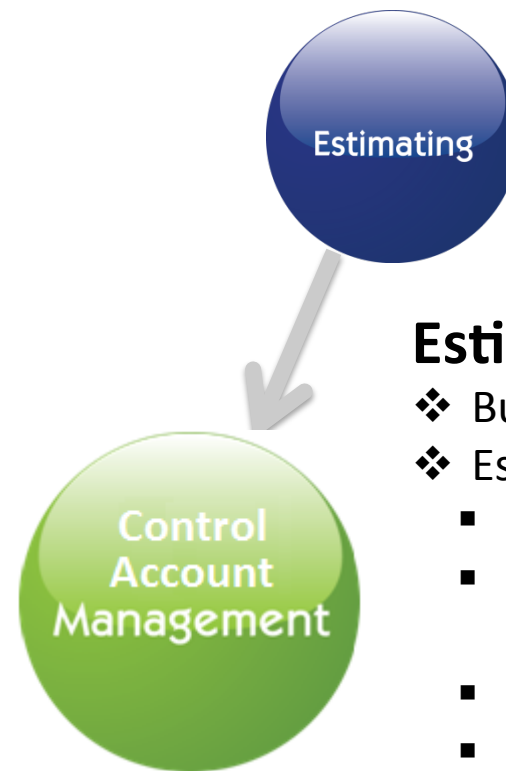
Estimating
- ❖ Budget Detail
- ❖ Estimate Integration
  - ▪ Excel Spreadsheets
  - ▪ Commercial Estimating Software
  - ▪ PRISM Project Estimator
  - ▪ Combine Estimates from Multiple Sources
- ❖ Unit Price Estimating
- ❖ Estimate Reporting

Integrate Cost & Schedule

Schedule Integration
- ❖ Oracle Primavera P6
- ❖ Microsoft Project
- ❖ Import
  - Schedule Activities
  - Schedule Resources
  - User-defined Coding

Integrate Cost & Schedule
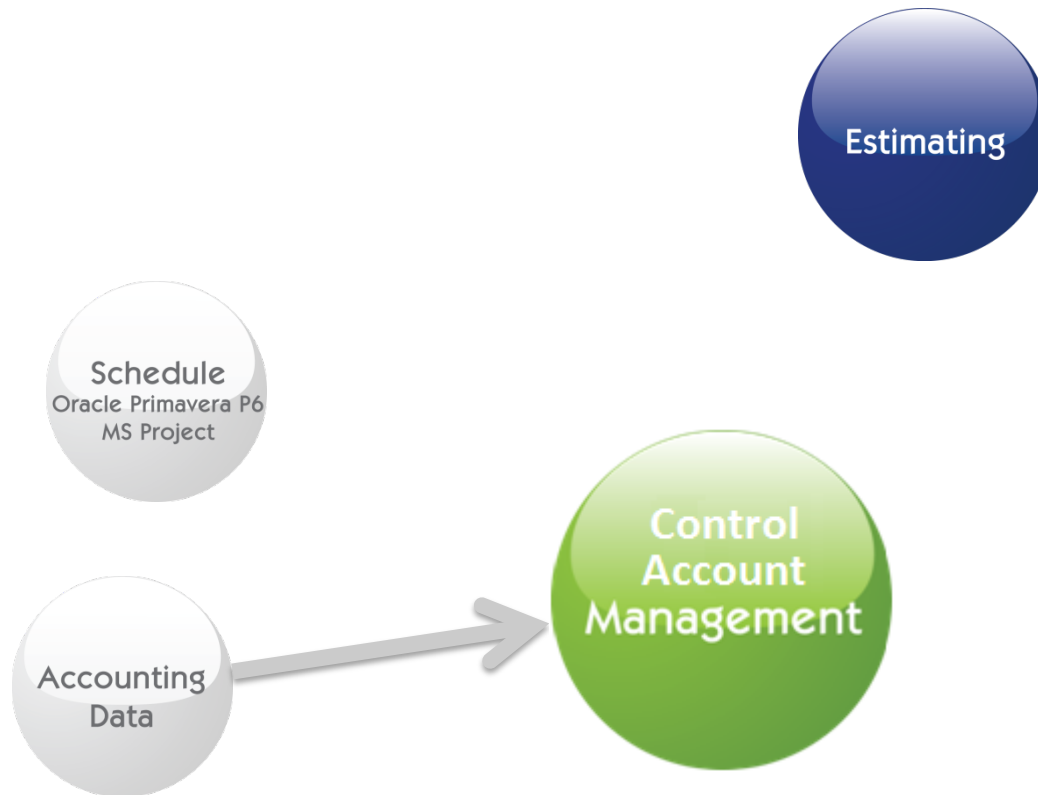
Financial Integration

❖ Import
  ▪ Actual Costs
  ▪ Commitments

Integrate Cost & Schedule

PRISM ^{G2}

Estimating

Schedule
Oracle Primavera P6
MS Project

Accounting
Data

Control
Account
Management

Integration
Engine
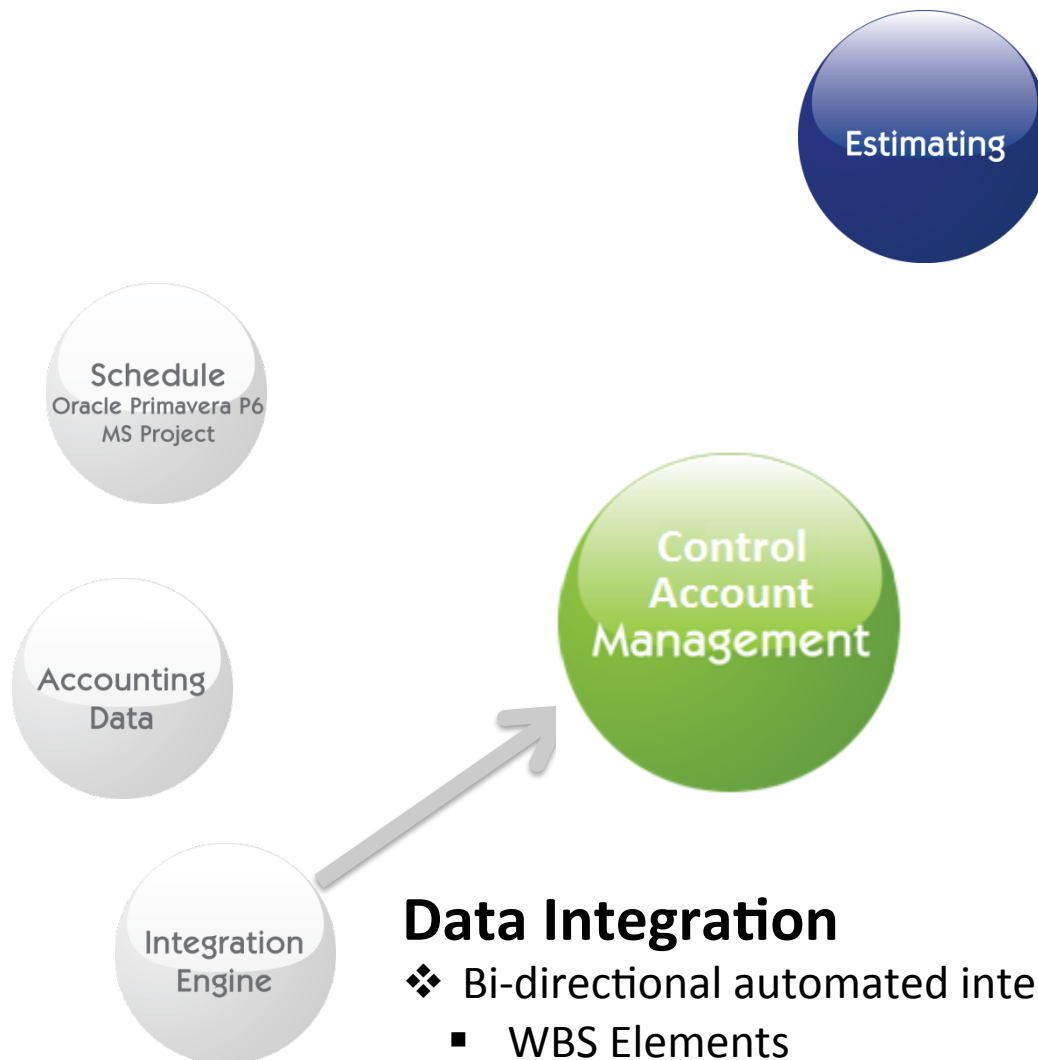
Data Integration

❖ Bi-directional automated interface
- WBS Elements
- Estimates/Budgets
- Actual Costs
- Commitments

Project Execution
Automated Data Collection & Validation

PRISM G2

Seamless Primavera P6 and MS Project Integration

Progress, Engineering & Field Status, Schedule Changes

Complete Cost Management System

Capital Planning & Time-Phased Budget

Collect Actuals & Measure Progress

Change Management

Calculate Performance & Analyze Variance

Analysis, Reporting, Corrective Actions

- *Integrated EVM*
- *Consolidated Performance*
- *Forecast/Commitments*

- *ANSI 748 Compliant*
- *Dashboards/Reporting*
- *Engineering, Procurement & Construction Progressing*

Scalable & Proven ERP/Accounting Integration
SAP, Oracle, JDE, Spreadsheets
Actuals/Commitments (Hrs, $, Quantities)

Management throughout the Project Lifecycle

Estimating

Engineering

Schedule
Oracle Primavera P6
MS Project

Accounting Data

Control Account Management

Integration Engine

Engineering

- ❖ Engineering Deliverable Budgeting & Tracking
- ❖ Progress Measurement
- ❖ Engineering Performance
- ❖ Forecasting
- ❖ Reporting

Management throughout the Project Lifecycle

Estimating

Engineering

Schedule
Oracle Primavera P6
MS Project

Control Account Management

Procurement

Accounting Data
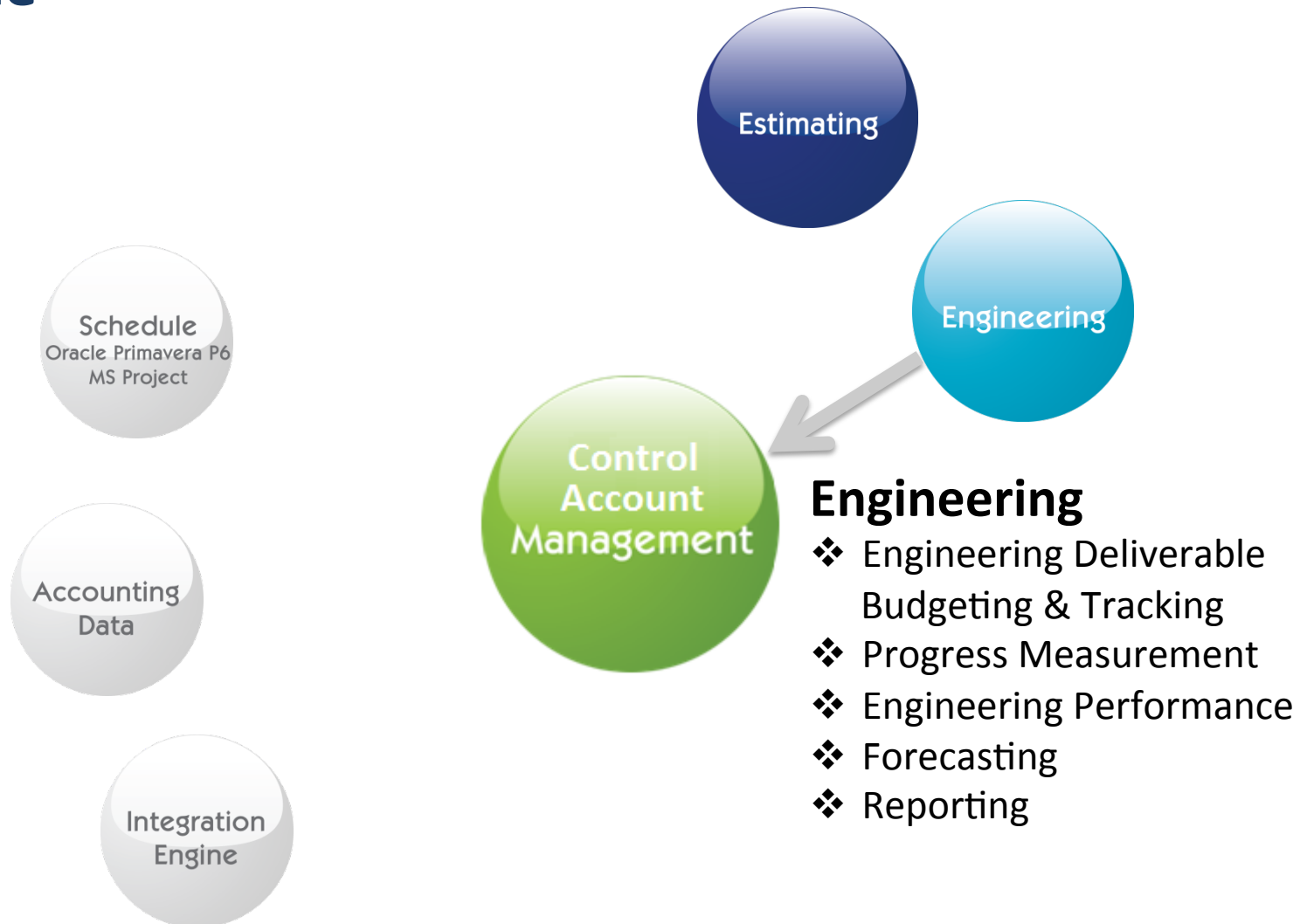
Integration Engine
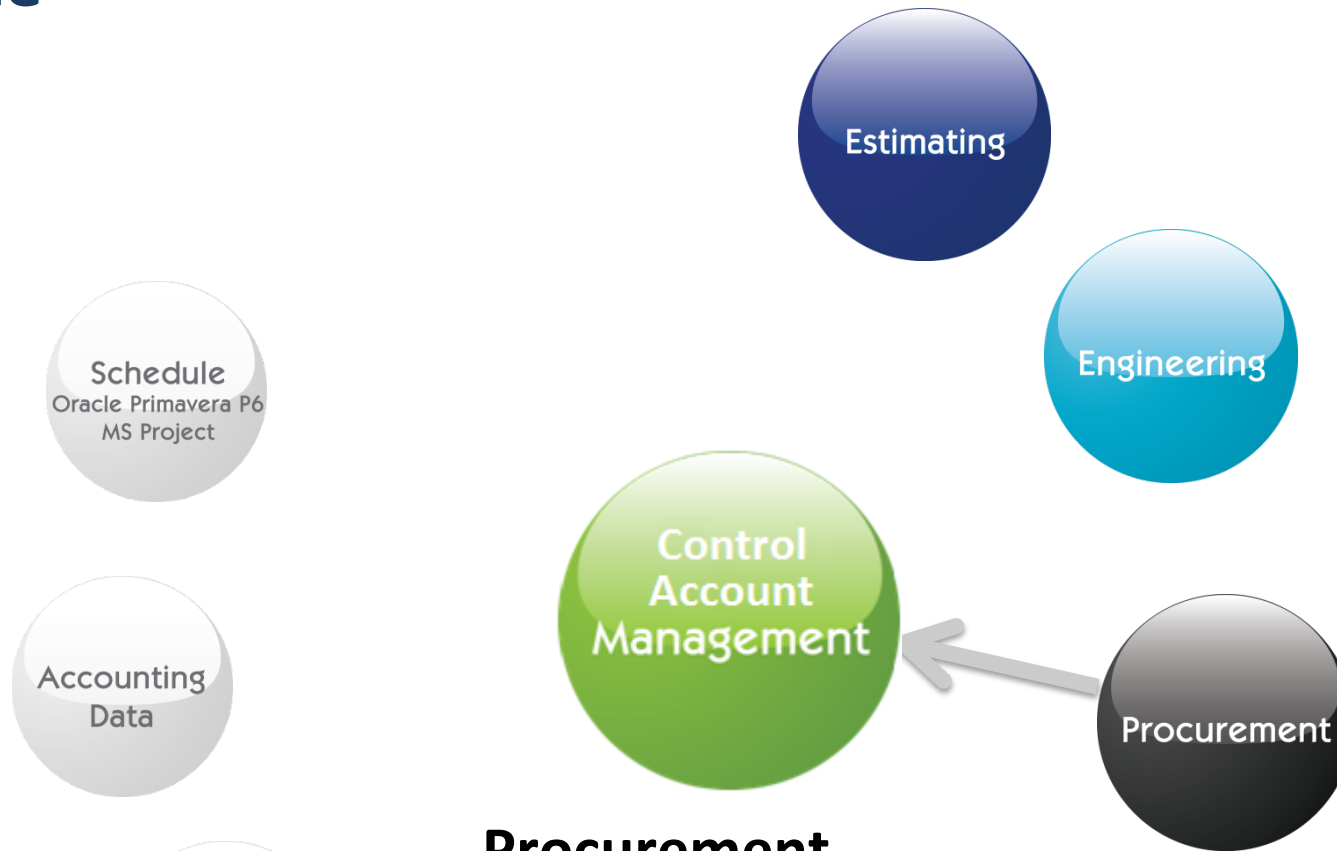
Procurement
❖ Purchase Requisitions
❖ RFQ's and Purchase Orders
❖ Change Management
❖ Shipment Expediting
❖ Auto Populate Commitment in Cost
❖ Invoice Management

Management throughout the Project Lifecycle

Estimating

Engineering

Schedule
Oracle Primavera P6
MS Project

Control Account Management

Procurement

Accounting Data

Integration Engine

Contracts

❖ RFQ's and Contracts
❖ Change Management
❖ Progress Measurement
❖ Auto Populate Commitment in Cost
❖ Invoice Management

Contracts

Management throughout the Project Lifecycle

Estimating

Engineering

Schedule
Oracle Primavera P6
MS Project

Control
Account
Management

Accounting
Data

Procurement

Construction
- ❖ Rules of Credit
- ❖ Remote Access
- ❖ Progress Measurement

Contracts

Construction

Management throughout the Project Lifecycle

Schedule Integration
Get the project team on the same page at the same time

Schedule
Oracle Primavera P6
MS Project

Accounting Data

Integration Engine

Control Account Management

Estimating

Engineering

Procurement

Contracts

Construction

Total Cost Management

- ➢ Time-phased baseline budget
  - ▪ Estimate Integration
  - ▪ Resource Planning
  - ▪ Schedule Integration
- ➢ Progress Measurement
  - ▪ % Complete Calculations
  - ▪ Accounting Integration
  - ▪ Commitments
- ➢ Performance Measurement
  - ▪ Earned Value Analysis
  - ▪ Variance Analysis

Total Cost Management

- ➢ Change Management
  - ▪ Trends
  - ▪ Risk Identification
  - ▪ Change Control
- ➢ Funding Management
- ➢ Forecasting
- ➢ Reporting

PRISM^{G2} Complete Cost Management Solution

Sample Enterprise Dashboard With Graphing and spreadsheet format (download to Excel)
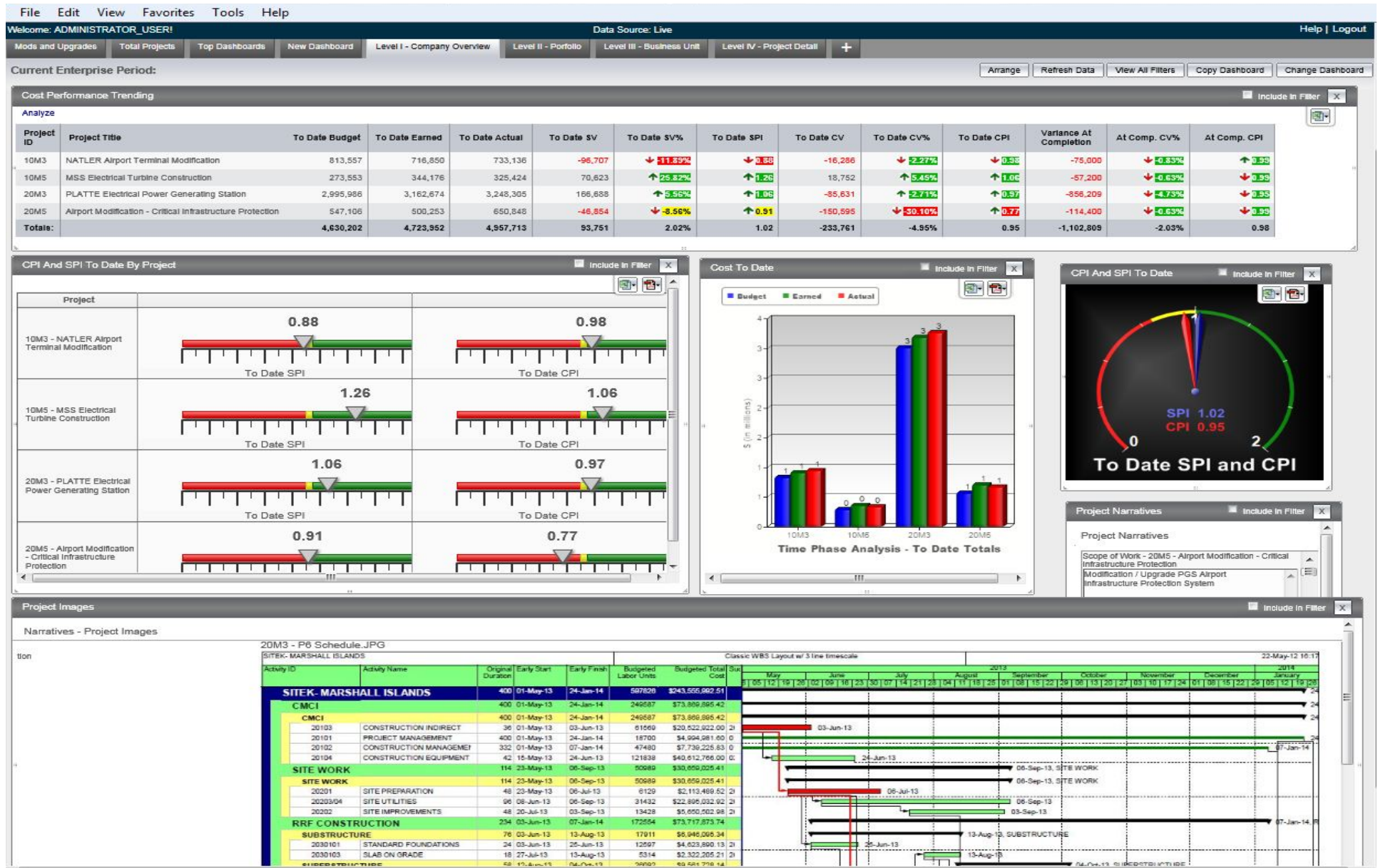
Sample Project Dashboard With Key Performance & Project Narratives
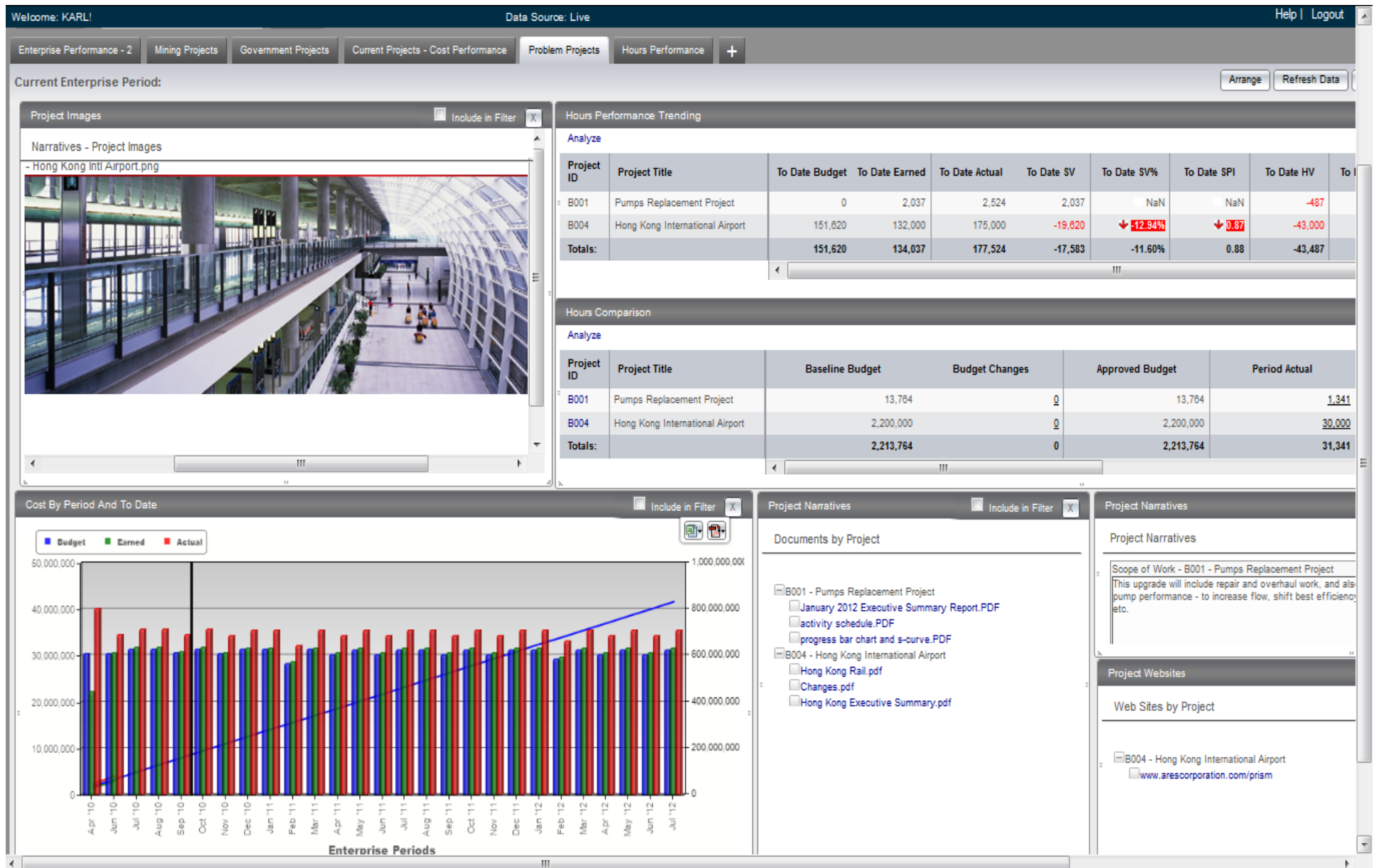
Drilldown to Instant Project Summary Reports
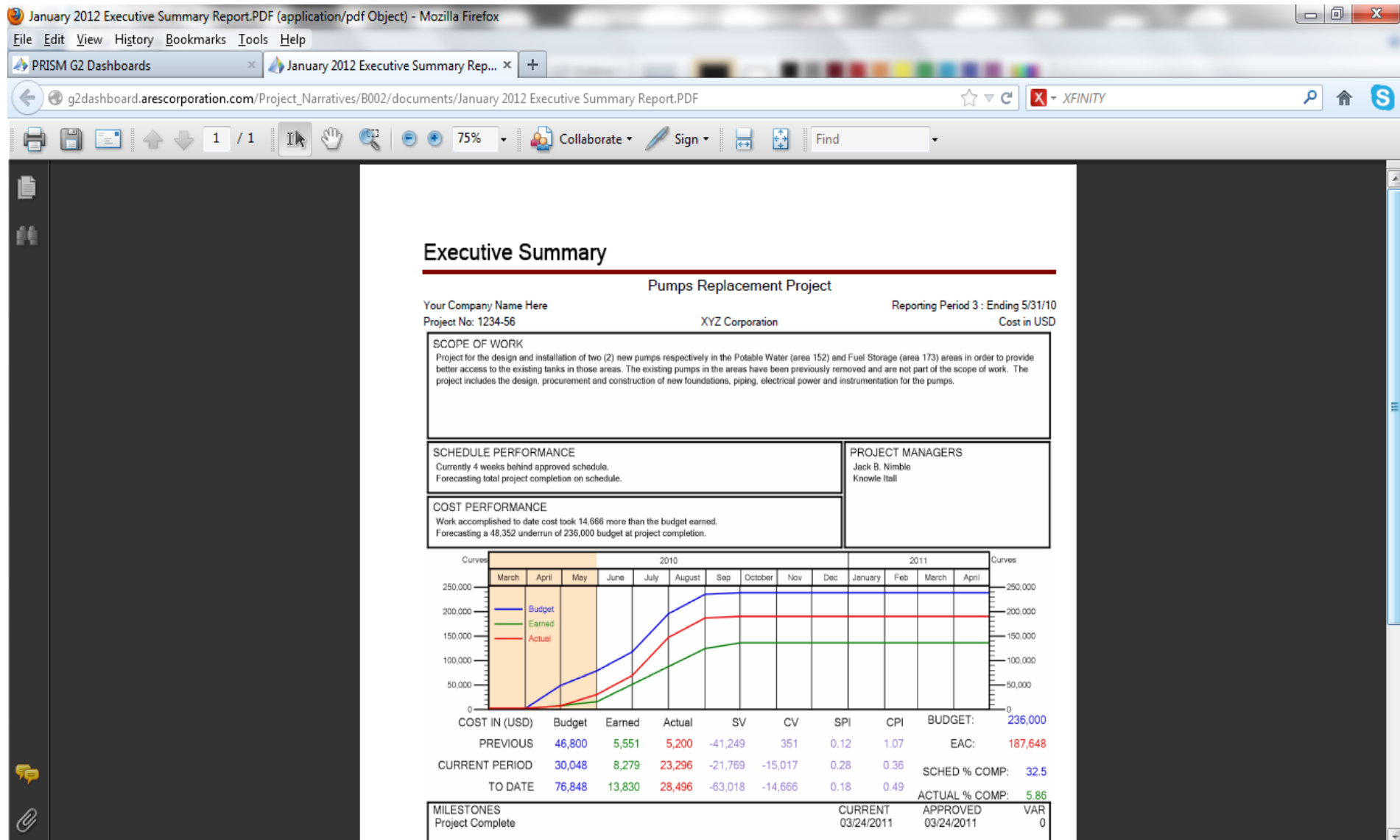
Custom Report Writer w/ 150+ Standard Reports Included

Time Phased Performance

Pacific Northwest Refinery Refurb

Reporting Period 8 : Ending 8/31/11
Cost In $

	Jan'11	Feb'11	Mar'11	Apr'11	May'11	Jun'11	Jul'11	Aug'11	Sep'11	Oct'11	Nov'11	Dec'11	Remain	Total
STAGE: Feasibility														
A-405-000-000-1 Feasibility-Scoping Study-Phillips 66														
Budget	181,800	0	0	0	0	0	0	0	0	0	0	0	-15,000	166,800
Earned	181,800	0	-25,000	0	0	0	0	10,000					0	166,800
Actual	0	0	0	0	0	0	0	0					156,800	156,800
STAGE: Feasibility														
Budget	181,800	0	0	0	0	0	0	0	0	0	0	0	-15,000	166,800
Earned	181,800	0	-25,000	0	0	0	0	10,000					0	166,800
Actual	0	0	0	0	0	0	0	0					156,800	156,800
STAGE: Basic Engineering														
B-301-000-JJE-1 Basic Engineering-Process Elements-General-JJ EPC														
Budget	72,242	375,658	0	0	0	0	0	0	0	0	0	0	-62,379	385,521
Earned	13,437	434,463	-62,379	0	0	0	0	-385,521					385,521	385,521
Actual	0	193,617	0	0	0	0	0	0					12,621	206,238
B-305-000-JJE-1 Basic Engineering-CDU-General-JJ EPC														
Budget	0	48,932	108,349	582,989	104,854	0	0	0	0	0	0	0	-125,000	720,125
Earned	0	57,046	663,079	0	0	0	0	-720,125					720,125	720,125
Actual	0	68,397	313,057	0	0	0	0	0					0	381,454
STAGE: Basic Engineering														
Budget	72,242	424,590	108,349	582,989	104,854	0	0	0	0	0	0	0	-187,379	1,105,646
Earned	13,437	491,509	600,700	0	0	0	0	-1,105,646					1,105,646	1,105,646
Actual	0	262,014	313,057	0	0	0	0	0					12,621	587,692
STAGE: Detailed Engineering														
C-301-000-JJE-1 Detailed Engineering-Process Elements-General-JJ EPC														
Budget	0	0	0	0	224,583	449,941	1,174,028	0	0	0	0	0	0	1,848,553
Earned	0	0	0	332,739	813,363	332,739	369,711	-1,848,553					1,848,553	1,848,553
Actual	0	0	0	306,500	809,933	498,712	228,145	0					0	1,843,290
STAGE: Detailed Engineering														
Budget	0	0	0	0	224,583	449,941	1,174,028	0	0	0	0	0	0	1,848,553
Earned	0	0	0	332,739	813,363	332,739	369,711	-1,848,553					1,848,553	1,848,553
Actual	0	0	0	306,500	809,933	498,712	228,145	0					0	1,843,290

Manage Performance

PRISM G2

Performance

Pacific Northwest Refinery Refurb

Reporting Period 8 : Ending 8/31/11
Cost In $

Stage ID And Description

	Period Budget	Period Earned	Period Actual	Period SV	Period CV	To Date Budget	To Date Earned	To Date Actual	To Date SV	To Date CV	Budget At Completion	EAC	Variance At Completion
TYPE: Gross Project													
A Feasibility — 100.00 Percent Complete	0	0	0	0	0	1,026,925	876,925	381,454	-150,000	495,471	876,925	538,254	338,671
B Basic Engineering — 100.00 Percent Complete	0	0	0	0	0	447,900	385,521	193,617	-62,379	191,904	385,521	206,238	179,283
C Detailed Engineering — 100.00 Percent Complete	0	0	0	0	0	1,848,553	1,848,553	1,843,290	0	5,263	1,848,553	1,843,290	5,263
D Procurement — 78.83 Percent Complete	47,948	18,937	22,431	-29,011	-3,494	117,693	384,391	394,216	266,698	-9,825	487,600	553,879	-66,278
E Fabrication/Construction — 26.70 Percent Complete	7,688,757	5,650,847	5,520,995	-2,037,910	129,852	12,406,290	5,650,847	5,520,995	-6,755,443	129,852	21,166,749	22,048,765	-882,016
M Project Management — 4.72 Percent Complete	552,872	502,580	502,580	-50,292	0	552,872	502,580	502,580	-50,292	0	10,657,947	10,657,947	0
G Commissioning — 0.00 Percent Complete	7,358	0	0	-7,358	0	10,444	0	0	-10,444	0	78,000	78,000	0
TYPE: Gross Project — 27.18 Percent Complete	8,296,935	6,172,364	6,046,006	-2,124,571	126,357	16,410,677	9,648,816	8,836,152	-6,761,860	812,664	35,501,294	35,926,372	-425,078
TYPE: Below The Line													
Z FCX — 0.00 Percent Complete	0	0	0	0	0	0	0	0	0	0	1,800,000	1,800,000	0
X Contingency — 0.00 Percent Complete	0	0	0	0	0	0	0	0	0	0	2,800,000	2,800,000	0
Y Escalation — 0.00 Percent Complete	0	0	0	0	0	0	0	0	0	0	3,200,000	3,200,000	0
TYPE: Below The Line — 0.00 Percent Complete	0	0	0	0	0	0	0	0	0	0	7,800,000	7,800,000	0
Report Totals — 22.28 Percent Complete	8,296,935	6,172,364	6,046,006	-2,124,571	126,357	16,410,677	9,648,816	8,836,152	-6,761,860	812,664	43,301,294	43,726,372	-425,078

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Total Cost Management with ARES PRISM

PRISM G2

Eliminate Surprises That Lead To Delay Or Cost Overrun

- Eliminate risk with real-time integration by aligning budget, scheduling and incurred costs
- Enterprise dashboards, project reports, graphics and KPIs that deliver early warning to problems
- Remote accessibility for executives and/or contractors for timely information

Single Record of the Truth

- Cost & schedule forecasting across the project, portfolio, or enterprise
- Measure performance and productivity using cost, hour and quantity controls
- Simplified month-end reporting to reduce FTEs
- Analyze data versus reporting history

Low-Risk Configured "Out-of-the-box" Solution

- Standard solution with enterprise structures, configurable metrics required to meet business processes with NO custom programming required
- Role-based interfaces to streamline processes and consistency
- Rapid implementation with immediate ROI

Select Customers

Benefits: Empower Project Controls

- **Timely, accurate information on actuals and trends can eliminated $100K to 1M+ in surprises and significant delays**

- **Save up to 50% in Project Controls effort in data collection, validation and reporting… enables predictive analysis and insight on trends via dashboards and reports**

- **Configurable Solution allows for implementation in months vs. years and saves up to $1M in integration, implementation, and custom reports**

- **"Single version of the Truth" via a trusted source for Project Information, KPIs, and trends**

Questions?

Thank you,
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www.arescorporation.com/prism