



Introduction to PRICE Cost Analytics™ *for* Unison PRISM User Community

Estimate with Confidence™

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Today's Presenter

Joe Bauer

Director, Government Sector for the Americas



- 20 years of service in the US Air Force
- Former Technical lead (Solutions Consultant) for US Air Force and Canadian government clients
- Supports training, mentoring, and consulting in predictive estimation and data analysis
- Master of Science degree in Cost Analysis from the Air Force Institute of Technology and an MBA
- Certified Cost Estimator / Analyst (CCEA) with ICEAA and is a frequent presenter at ICEAA workshops and conferences



PRICE[®] Systems Vitals

- Recently acquired by Unison Corporation
- Independent business unit spun-off Lockheed Martin in 1998; RCA in 1960's; formerly "RCA PRICE"
- Headquarters in Mt. Laurel, NJ with additional offices DC, Dayton, OH, UK, France, Germany
- Highly virtual workforce of under 100, plus over 100 partner employees in reseller network outside North America
- 400+ enterprise customers worldwide & 16,000+ project professionals trained

Government Customers

Representative list only

U.S. Government

- NASA
- U.S. Army (Enterprise)
- U.S. Air Force (Enterprise)
- U.S. DHS
- U.S. NGA
- U.S. Census Bureau
- Defense Logistics Agency



International

- Canadian DND, TBS
- UK MOD
- France DND
- Germany BWB
- Spain DND
- Italy MOD
- S. Korea MOD, Japan MOD, ESA, and more



Global Commercial Customers

Representative list only



Consulting Organizations

Representative list only

- Booz Allen Hamilton
- LEIDOS
- Avascent
- 202 Group
- McNulty & Associates
- MCR Corporation
- Tecolote Research
- QinetiQ

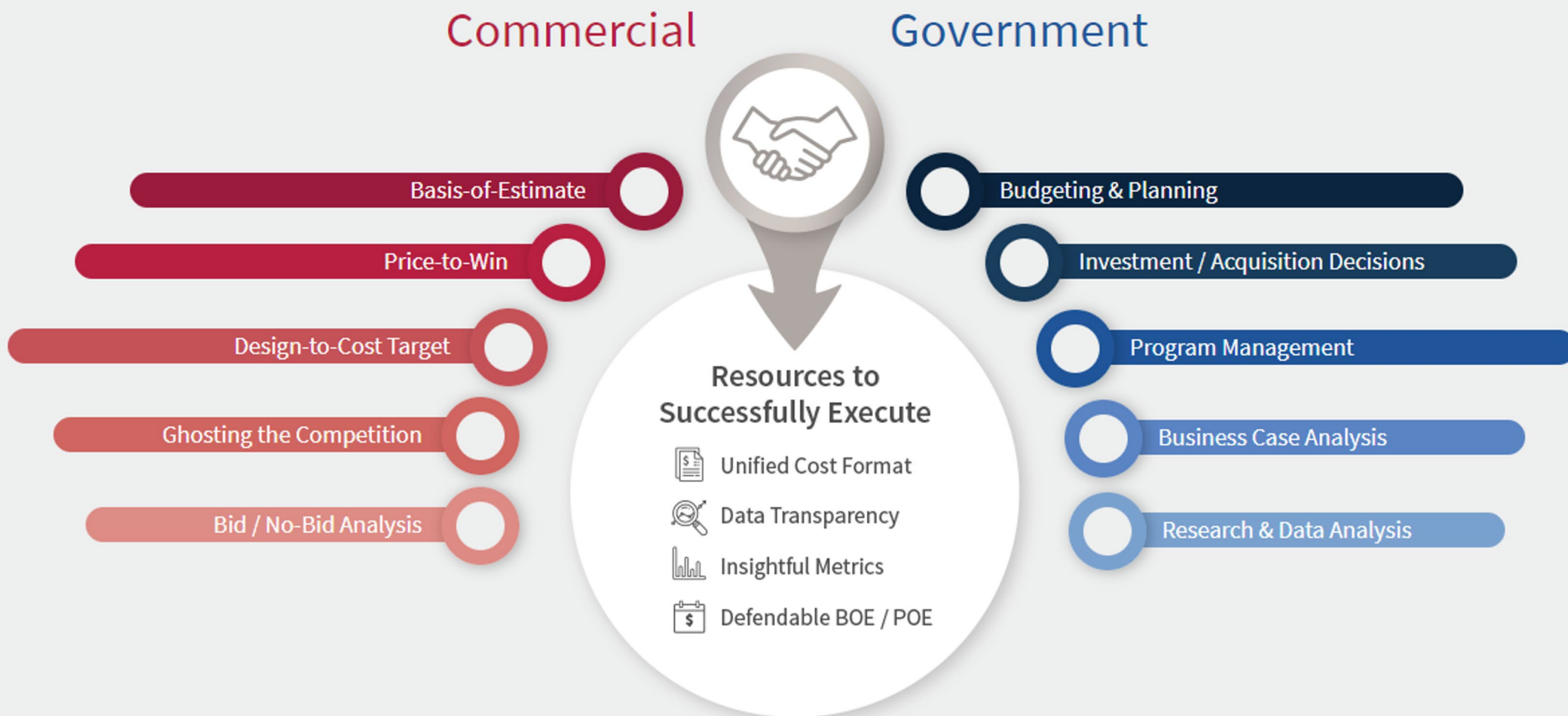
Booz | Allen | Hamilton®



QINETIQ



Our Vision



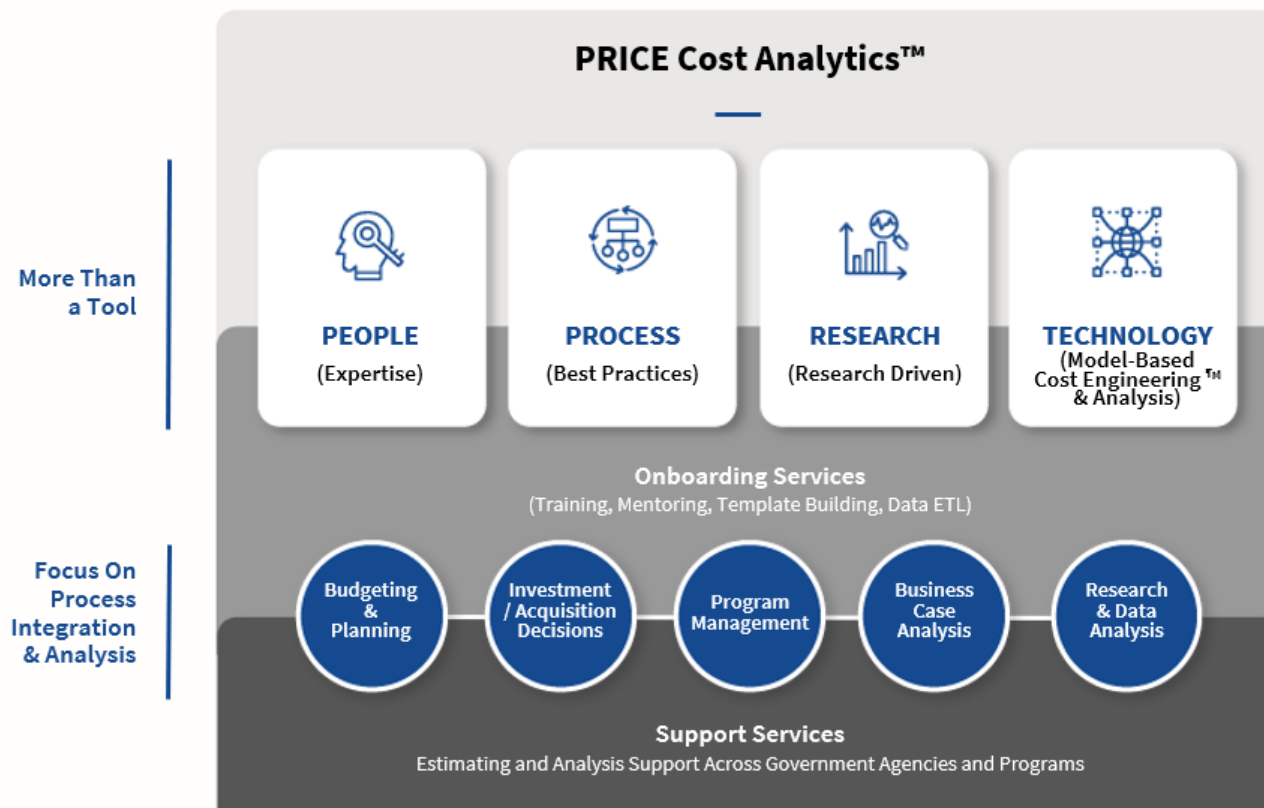


The Offer

Expertise. Best Practices. Research-driven,
Model-based Cost Engineering™ Technology.

Dimensions of PCA

The Government Offer

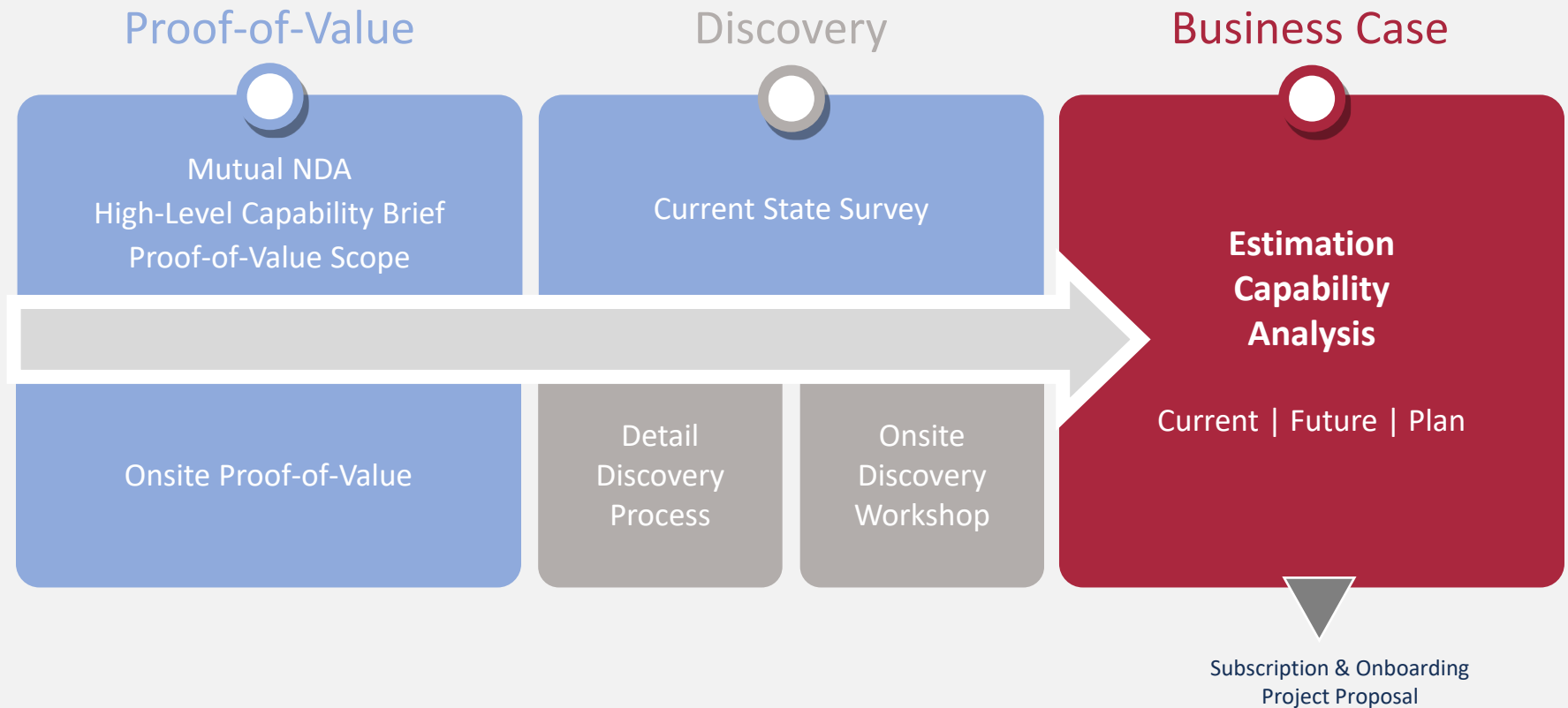




Value Proposition

Proven. Data-Driven. Rapid. Model-based Cost Engineering™.

PCA Subscriber Onboarding Path



People

Process

Technology

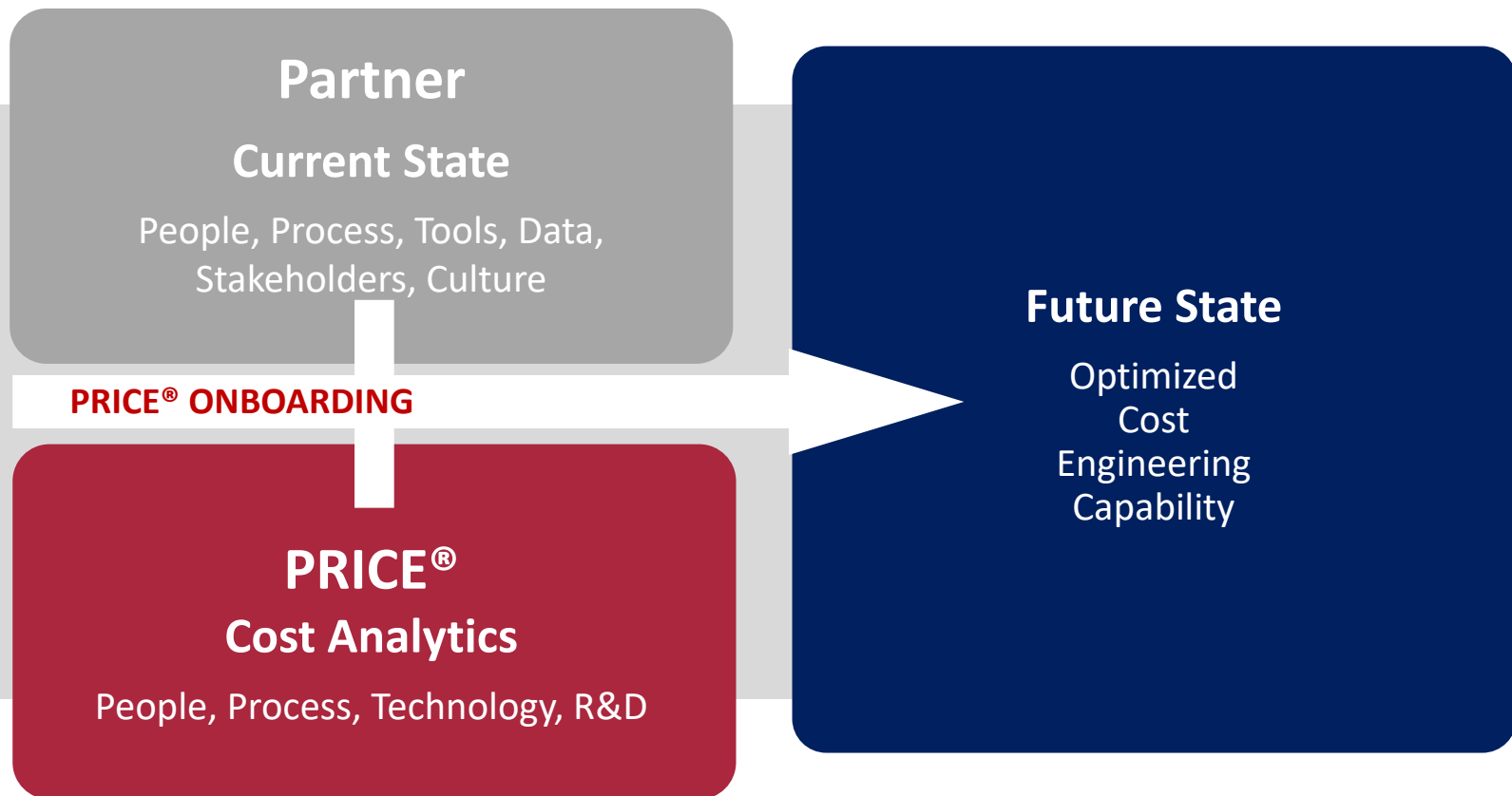
Data

Stakeholders

Culture

PRICE® Cost Engineering Intelligence

Success requires an intimate knowledge of your current estimation capability with consideration of:





Cost Analytics



TrueExplorer

Search & extract data from the PCA Ecosystem



TrueFindings

Manage & Analyze Data Sets



PRICE® Models

Validated Predictive Models



TruePlanner

Integration Framework



TrueMapper

Persistent Results Mapping



TrueBOE

Basis-of-Estimate Generator



TrueXLS

Access PCA Engine from Excel





PRICE Cost Analytics™ Demonstration

Questions?



Contact PRICE®

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TrueExplorer



TrueFindings



PRICE® Models



TruePlanner



TrueMapper



TrueBOE



TrueXLS

Search &
extract data
from the PCA
Ecosystem

Manage &
Analyze Data
Sets

Predictive
Models

Integration
Framework

Customer
Data Mapping

Basis-of-
Estimate
Generator

Access PCA
Engine
from Excel

Backup

Framework (User Interface)

Generate detailed
schedule results

PRICE

Apply uncertainty to
estimate cost risk

The screenshot displays the PRICE software interface, which is divided into four main panels:

- Product Breakdown Structure:** A tree view showing a hierarchy starting with 'Untitled', followed by 'System', 'Assembly', and 'Software Component'.
- Uncertainty Analysis:** A panel with tabs for 'Attributes', 'Chart', 'Metrics', 'Schedule', and 'Uncertainty Analysis'. The 'Uncertainty Analysis' tab is selected.
- Input Sheet:** A table for entering data. It has columns for 'Software Component', 'Cost', 'Labor Requirement', and 'Value'. The table is divided into sections: 'Application Details', 'Contract Service Options', and 'Software Size'.
- Results:** A table showing the results of the analysis. It has columns for 'Software Component', 'Total', and 'Subtotal'. The table is divided into sections: 'Software Requirements Analysis', 'Evaluation and Selection', 'Configuration and Tailoring', 'Software Design', 'Code and Unit Test', 'Software Integration and Test', 'Software Qualification Test', 'Purchase Software', 'Software Installation Support', 'Software Maintenance', 'Software Adaptation', and 'Subtotal'.

Select Cost Objects to Model and
Configure a Product Breakdown
Structure

Input program
specific data to tailor
industry benchmarks

Configure output
reports and graphs

Includes Well Established Database

- **On-going data collection process:**

- Started in late 70's to establish initial CERs for cost estimating
- Currently driven by user requests and technology trends to maintain and modify current CERs and create new CERs as needed
- Ensures the PRICE models are current and relevant

- **Focus on:**

- Specific HW and SW systems
- Emerging technologies
- New and evolving manufacturing processes
- New and evolving SW development processes

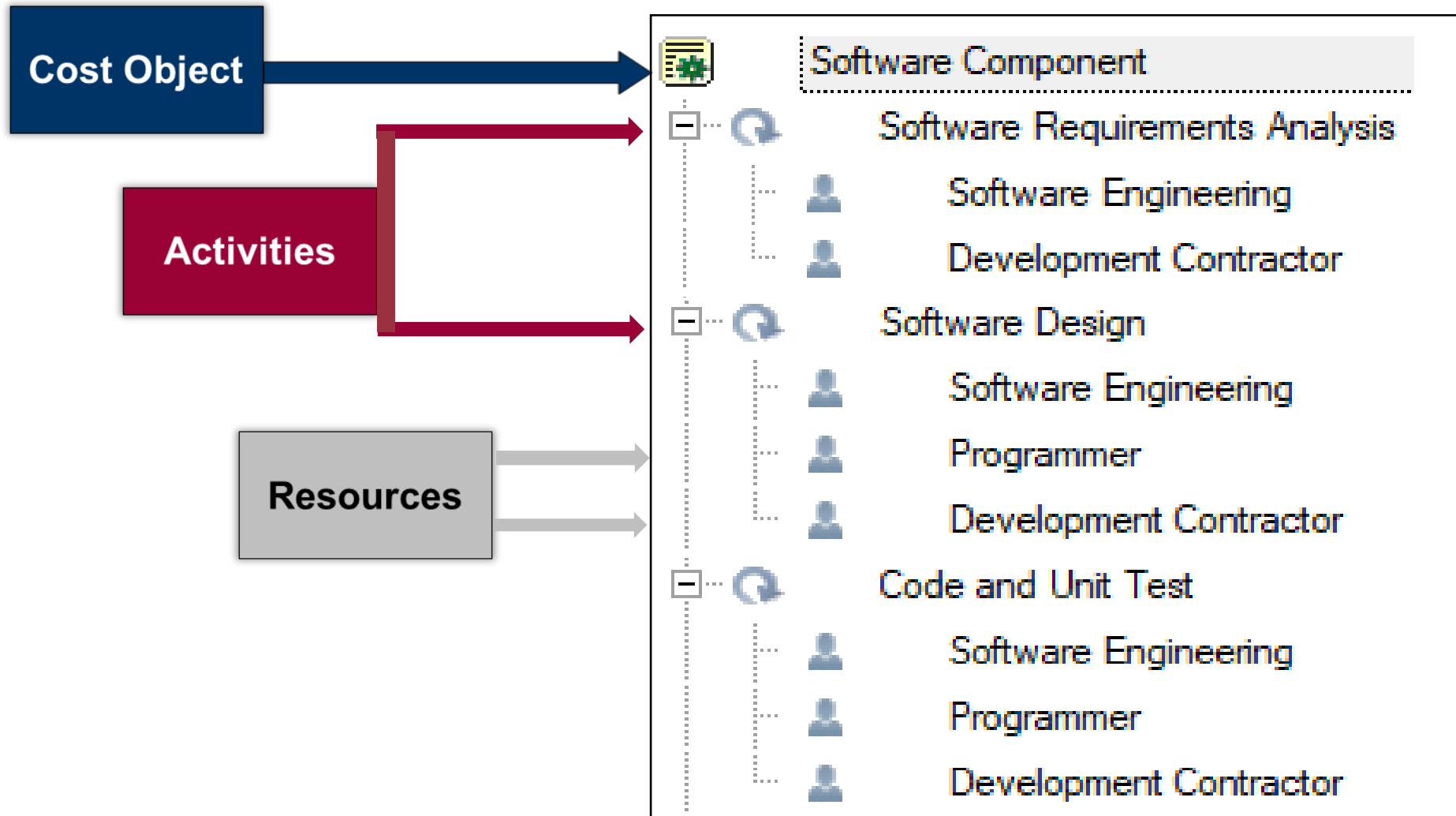
PRICE Database as of CY2016	Hardware	Software
<u>Operating Specification</u>	<u>Data points</u>	<u>Data points</u>
Commercial/Military MIS	690	7394
Military Ground	335	621
Military Mobile (Ground/Sea)	1246	385
Commercial Air/FAA	501	88
Military Air	3617	1298
Unmanned Space	3051	367
Manned Space	274	5
Additive Manufacturing	691	-
Total:	10405	10158

- **Data sources include:**

- Purchased data from sources such as Jane's, International Benchmark Standards Group (ISBSG), Data Search Associates, Haystacks
- Publicly available data such as the GAO, Aviation Weekly, Wall Street Journal, Bureau of Labor Statistics
- Government data, such as EVM reports, program reports and government databases

Cost Model Object Hierarchy

Each Cost Model Object is a Complete Set of Activities and Resources



Demo – Framework View



PRICE TruePlanning 16.2 - [SW Object Demo-VA CmnEle (July 2021).tppj]

File Edit View Project Reports Tools Window Help

Product Breakdown Structure

Simple Detailed

TruePlanning SW Life Cycle Models - Demo

- PME: Option 1 - Incremental SW Dev
 - System
 - Assembly: SW Integration (Dev + COTS)
 - Software Component: Application
 - Software COTS: SW Services
 - Software Component: Application_Software Maintenance Component
 - PME: Option 2 - Agile SW Dev
 - System
 - Assembly: SW Integration (Dev + COTS)
 - Agile Assembly: SW App - Feature Intg
 - Agile Software Component: App SW Item 1
 - Agile Software Component: App SW Item 2
 - Software COTS: SW Services
 - Software Component: Application_Software Maintenance Component

Input Sheet

Cost Objects Input Sheet Attributes Results Chart Metrics Schedule Uncertainty Analysis

Software Component: Application Detailed Estimate

Cost: \$28,399,777 25.64% Labor Requirement: 204,075.52 hours

Project Cost: \$110,751,883 Project Labor Requirement: 769,570.05 hours

Phase Set: A <Inherited> Worksheet Set: A <Inherited>

		Value	Units	Spread	Notes	Analyzer
1	Start Date	10/1/2021				
2	Application Details					
3	Application Type	Health Monitoring System				
4	Functional Complexity	4.52				
5	Operating Specification	1.200				
6	Organizational Productivity	1.000				
7	Development Team Complexity	3.00				
8	Contract Service Options					
9	Development Service Options	In-House				
10	Maintenance Service Options	In-House				
11	Software Size					
12	Size Units	Source Lines of Code (SLOC)				
13	New Size	484,099				
14	New Size Non-executable	0.00%	%			
15	Adapted Size	50,000				
16	Adapted Size Non-executable	0.00%	%			
17	Percent of Design Adapted	5.00%	%			
18	Percent of Code Adapted	10.00%	%			
19	Percent of Test Adapted	50.00%	%			
20	Design Repeat	47.00%	%			
21	Reused Size	50,000				
22	Reused Size Non-executable	0.00%	%			
23	Reuse Factor	0.68				
24	Deleted Size	0				
25	Removal Complexity	Remove functionality that is inopera				

Notional IT System
Health Monitoring
1 Prototype/Dev System
1 Production System
2 SW Approach Options:
- Traditional (Incremental)
- Agile (Releases, Sprints)
Includes Parallel Dev + Ops

Ready

NUM