

A Predictive Cost Modeling System for Better Decision-Making

An integrated approach to cost estimating

The PRICE® TruePlanning® Cost Estimating Framework provides a core methodology and multiple related resources to improve the accuracy, speed, transparency, defensibility, and standardization of cost estimating.

It integrates multiple cost models within the same framework, allowing for Systems-of-Systems (SoS) estimating. This integration means that a project incorporating hardware structures, software, electronic components, and assembly processes can be accommodated in a single estimate—with relationships among components linked, so that changes to one area are reflected across all related aspects of the estimate.

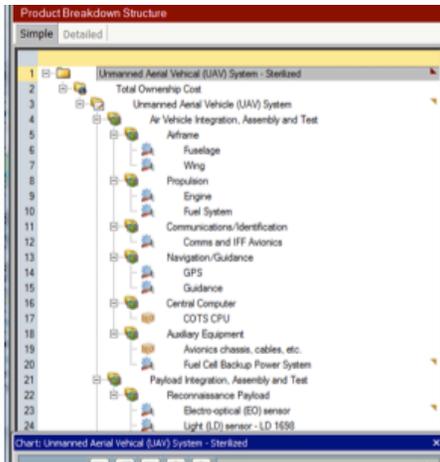


As the heart of a new approach to Estimating Systems Integration, the PRICE TruePlanning® framework establishes a basis for standardization among integrated cost models, links to other cost data resources, and opportunities for broader cost management capabilities.

Structured for credibility and standardization

The TruePlanning® framework, its associated cost models, and related functions provide a well-thought-out, standardized format that enhances the credibility management desires—across multiple engineering disciplines and organizational activities.

Its product breakdown structure is a tiered method of representing a program with component models. Each component estimates effort and material around a generic activity-based methodology of products, activities, and resources that readily maps to any specific work breakdown structure (WBS). Costs and schedules for the system and each component are estimated with a series of interrelated estimating relationships driven by estimator supplied cost drivers or industry average metrics compiled by PRICE Systems’ research team.



Automating the relationships among multiple component types and layers of a product in a hierarchal structure creates flexibility for rapid analysis of alternatives to determine the most cost-effective approach to a solution.

Also, by using discrete numerical values for key cost drivers—such as size, complexity and user-specific measurements—TruePlanning® improves the consistency and dependability of the estimate.

Beyond cost estimating, TruePlanning® and its related resources also create new possibilities for tracking cost relationships, to enable better cost management throughout a program life cycle.

Designed to improve speed and accuracy

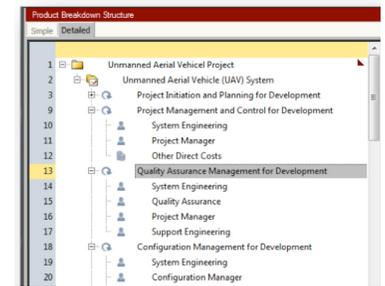
The structure and statistical rigor of TruePlanning® provide multiple advantages for efficient, accurate estimating outcomes.

- **Reduce estimating cost and effort** by 30%-60%, as reported by TruePlanning® users.
- **Quickly produce** independent estimates to compare with bids or engineering judgment.
- **Simplify** rapid design trade studies/analysis of alternatives.
- **Provide quick analysis** for early bid/no-bid decisions.
- **Enhance estimating precision** with discrete numerical values correlated to historical data.
- **Use established methodology** to avoid inaccurate calculations or overlooked factors in homegrown spreadsheets.
- **Assure data-driven accuracy** of industry-proven cost models.
- **Promote credibility** among management executives with customer-data-driven models and life cycle cost management.
- **Ensure complete coverage** with a comprehensive model of all activities and resources over all program phases.

More cost model options for predictive cost analysis

The ability to integrate multiple cost models within the TruePlanning® framework is complimented by the diversity of available PRICE® Cost Models™.

Unlike homegrown spreadsheets, PRICE Cost Models make it easier to leverage data from more than 21,000 public and private projects, analyzed in detail to quantify characteristics common across many applications—from manufacturing the smallest electronic components to fabricating the largest aircraft carriers.



Each specialized cost model, organized by product breakdown structure, is clustered in a library with other models focused on related disciplines:

- **Hardware.** This family of cost models spans everything from electronic chips, components, and modules, to COTS hardware and large-scale mechanical/structural constructions.
- **Software.** The software cost model library addresses COTS and custom software, as well as governance of service-oriented-architectures.
- **Systems.** The models in this library account for cost impacts of project oversight, assembly activities, hardware/software integration, purchased goods and services, and total ownership cost.
- **IT Infrastructure.** The library focuses on the costs of installing, upgrading, maintaining, and supporting IT infrastructure—from servers, to networks, to workstations, peripheral devices, and beyond.
- **Early Concepts.** These are TruePlanning®-compatible versions of cost models encompassing a variety of military aircraft, ship, and vehicle concepts.

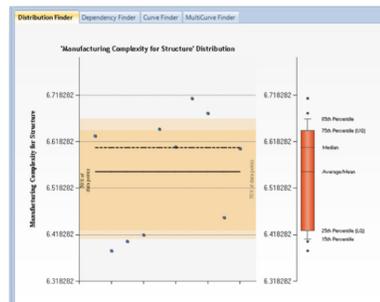
These standard PRICE Cost Models can also be complemented by cost findings developed from your organization's data—as captured from past projects and programs, and qualified through the discipline of PRICE® Research™.

Opportunities to add your own cost history insights

PRICE® TrueFindings®—an additional module of the TruePlanning® framework—answers the leading questions top management has about parametric estimating: “What is the basis for these numbers?” and “How do we know they are reliable?”

With TrueFindings®, your organization can incorporate you own historical data from past projects, with company-specific values for attributes such as manufacturing complexity or staff expertise. PRICE cost analysts with more than 300 years of experience will help you define, capture, analyze, format, and integrate properly calibrated data for use within the TruePlanning® framework.

TrueFindings® provides defensible insights that reflect your organization’s real-world cost experience, including influences of management structure and style.

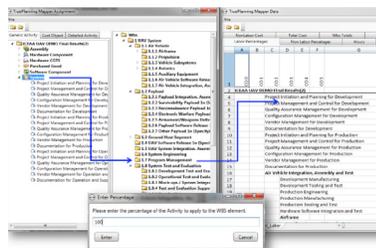


Add credibility and complete transparency to TruePlanning® estimates with seamless links to TrueFindings®, tracing the estimate parameters and supporting statistics

The foundation for an expanded approach to cost management

Beyond estimating alone, TruePlanning® extends the value of cost data for additional uses. PRICE® TrueMapper™ lets you map estimates from TruePlanning®’s product breakdown structure to your internal Work Breakdown Structure (WBS) or Cost Estimating Structure (CES). This makes it easier to compare top-down parametric estimates with bottom-up estimates at the project work package level. You can then identify areas requiring more analysis and reconcile any major differences in the estimates.

TruePlanning® also offers Companion Applications that make it easy to share and manipulate data with Excel—in either direction—and to format it for added value in reporting and analysis.



The ability to map, decompose, and combine results to your preferred internal formats presents estimates to project managers in formats familiar to them and compatible to the WBS/CES in which they must manage life cycle costs.

Empowered to expand your opportunities

PRICE TruePlanning® is also the foundation for more extensive cost management opportunities.

Leverage TruePlanning® against existing organizational data:

- **Incorporate** your organization’s historical cost data in estimates.
- **Map cost estimates** to be compatible for WBS/CES comparisons.
- **Map estimates** to formats used for cost management.

Streamline analytical options by sharing data via Companion Apps:

- **Simplify** viewing of multi-variable comparisons.
- **Model** the effects of input parameters on cost.
- **Streamline** feedback from SMEs
- **Share** large-scale datasets with spreadsheets.
- **Adjust** large data blocks in bulk.

Improve efficiency by sharing data with third-party resources:

- **Accept product attributes** directly from CAD systems.
- **Share results** with project management tools— such as Microsoft Project, Phoenix Integration, ACEIT, etc.

A beneficial resource throughout the organization

PRICE TruePlanning® is more than just an estimating solution. In addition to generating estimates, it provides a common frame of reference and common performance criteria across all levels of your organization and supply chain. This is helpful whether you are soliciting and evaluating bids, or trying to submit a winning bid on a new project or program.

- For estimators and engineers, TruePlanning® improves cost estimating speed and accuracy, with built-in flexibility to evaluate cost-saving alternatives quickly.
- Data generated by TruePlanning® estimates can be adapted to the needs of financial decision-makers and project managers, too—from immediate cost comparisons to long-term life cycle cost management.
- As an essential driver in PRICE® Estimating Systems Integration, TruePlanning® provides executive level support for business-case analysis, market-strategy checkpoints, and overall organizational objectives.

With more than 12,000 PRICE-trained users at 250 organizations worldwide, TruePlanning® has demonstrated its value at all levels of government, defense agency, aerospace/defense contractor, system integrator, management consultant, and commercial organizations.

Strategic partners in cost management

Beyond specific cost estimating products and services, PRICE® Systems offers strategic cost management services. We collaborate with your estimators, engineers, project managers, and financial and executive management to design and implement integrated cost management systems that meet the unique challenges in today's cost-sensitive environment. As a strategic partner, we help clients leverage our many years of experience to implement entirely new strategies for meeting aggressive cost management goals. Whatever your challenge, the full range of PRICE knowledge represented by our skilled personnel and corporate resources is available to meet your needs.

About PRICE Systems

As the world's most experienced cost estimating company, PRICE provides a wide range of services to aid in accurate, agile estimating:

- **PRICE Research** is the leader in independent cost research and analysis for top-down estimating.
- **PRICE® Professional Services** provide custom consulting—on a project or ad hoc basis—for top down estimating and cost estimating systems integration.
- **PRICE® Industry Training** and **PRICE® University** educate users on cost estimating fundamentals, business case analysis, earned value management, project cost management, total ownership cost and more.

PRICE TruePlanning®'s role in Estimating Systems Integration

The compatible family of PRICE® TruePlanning® Cost Estimating Framework and Companion Applications, PRICE® Integrated Cost Models™, PRICE® TrueFindings®, and PRICE® TrueMapper™ empowers a more strategic view of cost estimating and life cycle cost management, within the context of PRICE Estimating Systems Integration.



DECADES OF COST ESTIMATING EXCELLENCE

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