



**COST XPERT GROUP**  
INCORPORATED



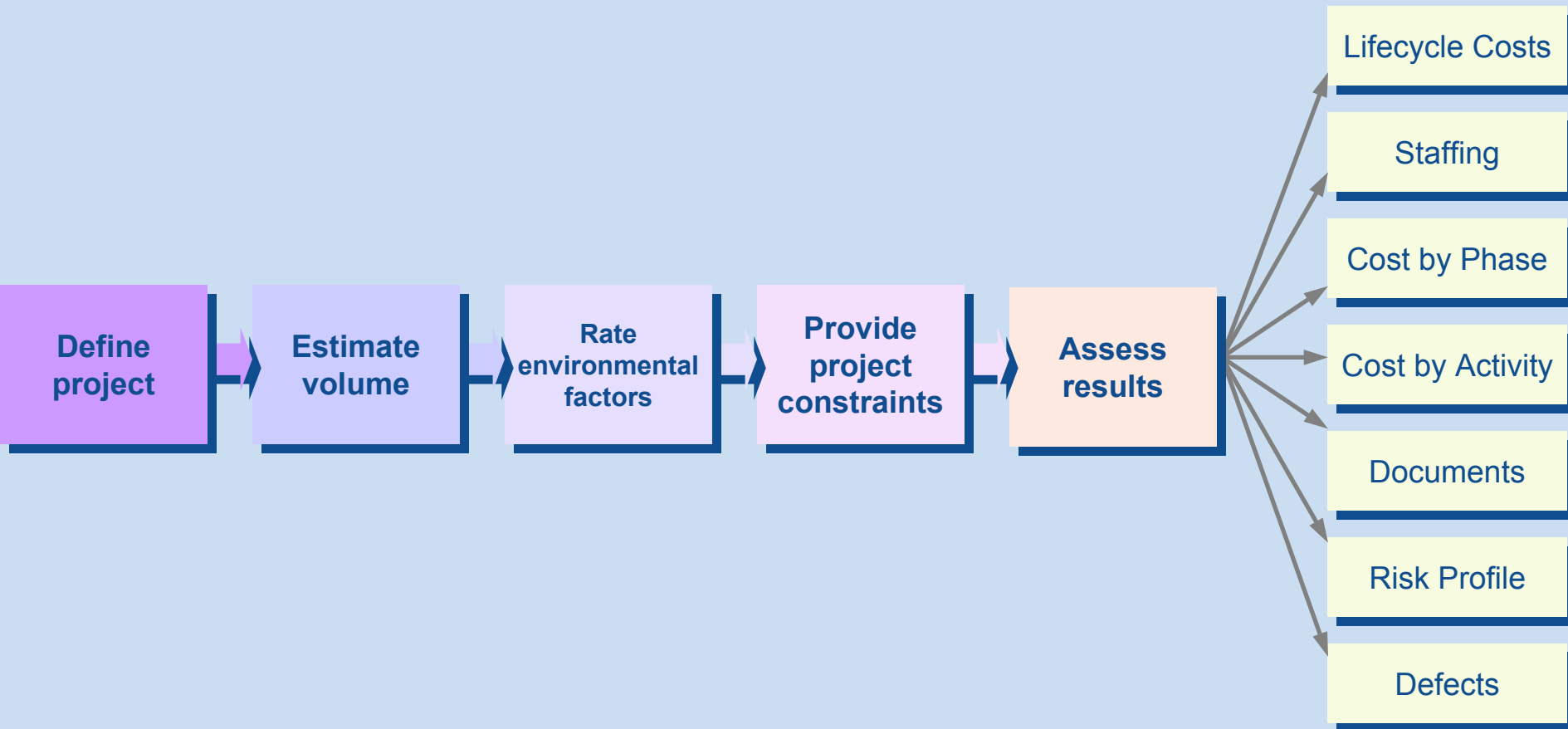
# Software Estimation with Cost Xpert

**COCOMO Forum**  
**October 22, 2003**

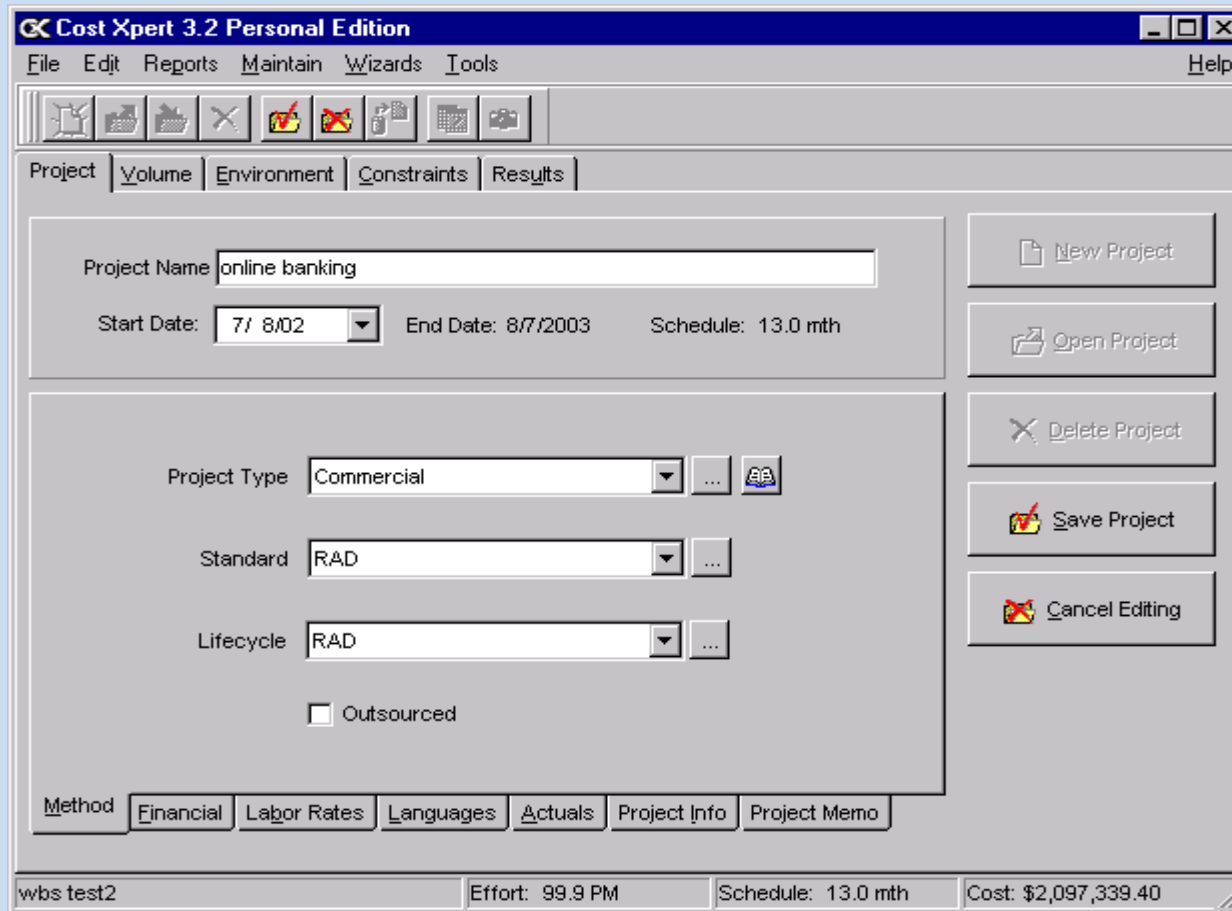
# Cost Xpert Tool

- Industry leader for < \$10K cost estimation tool market
- Easy to use for novices
- Sophisticated features for advanced users
- Integrates multiple estimating models
- Most extensive options for project type, lifecycle and documentation standards
- Interfaces with standard management and analysis tools

# Cost Xpert Workflow and Outputs



# Opening Screen




**Cost Xpert 3.2 Personal Edition**

File Edit Reports Maintain Wizards Tools Help

Project | Volume | Environment | Constraints | Results

Project Name:

Start Date:  End Date: 8/7/2003 Schedule: 13.0 mth

Project Type:  ... 

Standard:  ...

Lifecycle:  ...

Outsourced

Method:

wbs test2 Effort: 99.9 PM Schedule: 13.0 mth Cost: \$2,097,339.40

Buttons: New Project, Open Project, Delete Project, Save Project, Cancel Editing

# Volume Tab

Cost Xpert 3.3 Personal Edition

File Edit Reports Maintain Wizards Tools Help

Project **Volume** Environment Constraints Results

New   
  Reused   
  COTS   
 Mean SLOC: 40000

Module Name	Best	Expected	Worst	Mean	Std. Dev.
all	30,000	40,000	50,000	40,000	3,333.33

Description

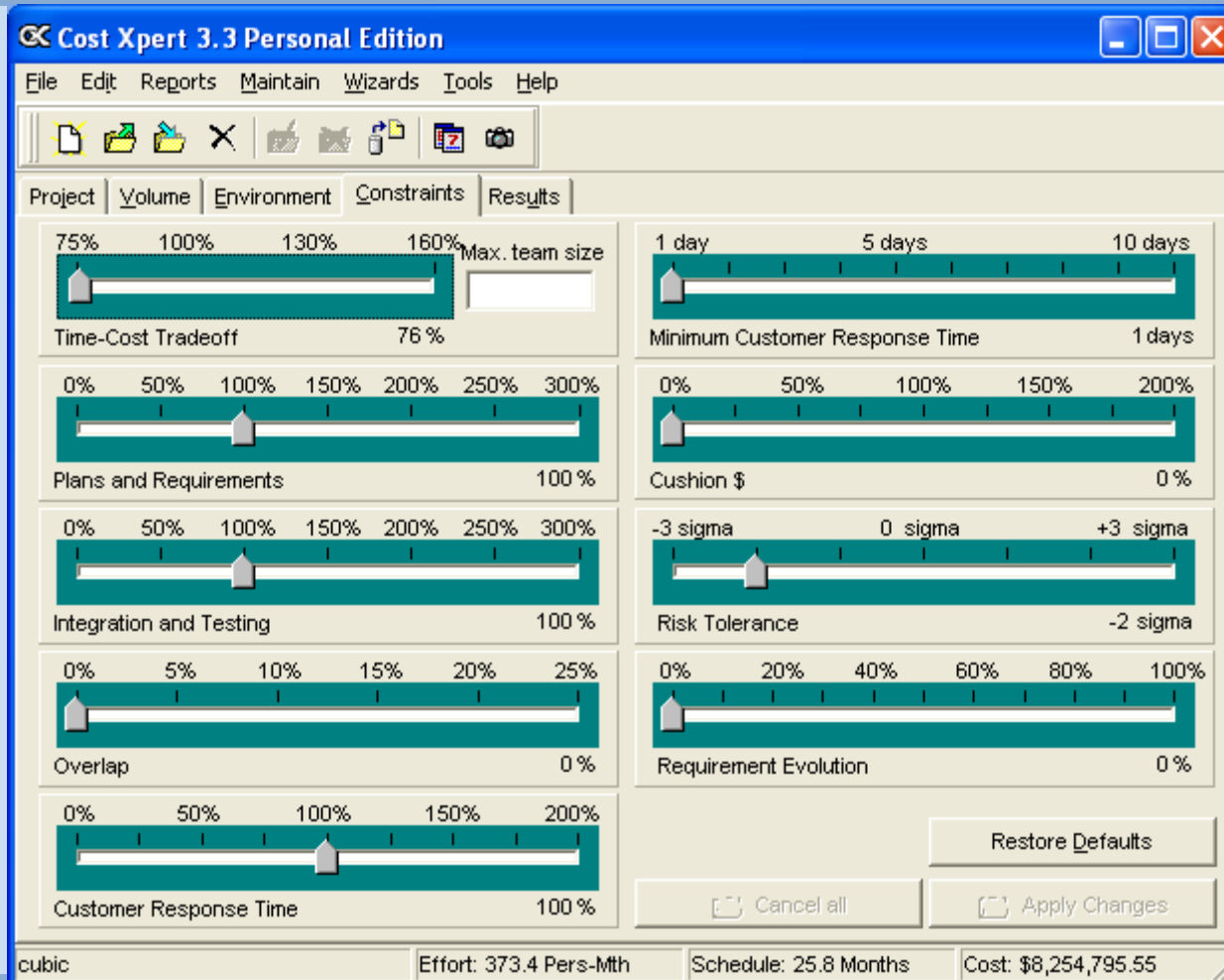
Hint

Break the project into modules. For each module, estimate the best case, expected, and worst case number of source lines of code. Source lines of code should include header declarations, job control language, and code lines. Do not

cubic   
 Effort: 373.4 Pers-Mth   
 Schedule: 25.8 Months   
 Cost: \$8,254,795.55

# Constraints Tab



**Cost Xpert 3.3 Personal Edition**

File Edit Reports Maintain Wizards Tools Help

Project Volume Environment **Constraints** Results

75% 100% 130% 160% Max. team size  
Time-Cost Tradeoff 76%

1 day 5 days 10 days  
Minimum Customer Response Time 1 days

0% 50% 100% 150% 200% 250% 300%  
Plans and Requirements 100%

0% 50% 100% 150% 200% 250% 300%  
Cushion \$ 0%

0% 50% 100% 150% 200% 250% 300%  
Integration and Testing 100%

-3 sigma 0 sigma +3 sigma  
Risk Tolerance -2 sigma

0% 5% 10% 15% 20% 25%  
Overlap 0%

0% 20% 40% 60% 80% 100%  
Requirement Evolution 0%

0% 50% 100% 150% 200%  
Customer Response Time 100%

Restore Defaults

Cancel all Apply Changes

cubic Effort: 373.4 Pers-Mth Schedule: 25.8 Months Cost: \$8,254,795.55

# Results Summary

**Cost Xpert 3.3 Personal Edition**

File Edit Reports Maintain Wizards Tools Help

Project Volume Environment Constraints Results

Method	Effort (PM)	Schedule (mth)
<input checked="" type="checkbox"/> SLOC	373.4	25.8
<input type="checkbox"/> 1-Function Points	0.0	0.0
<input type="checkbox"/> 2-Internet Points	0.0	0.0
<input type="checkbox"/> 3-Domino Points	0.0	0.0
<input type="checkbox"/> 4-UML Use-Case Pts	0.0	0.0
<input type="checkbox"/> 5-UML Class Method	0.0	0.0

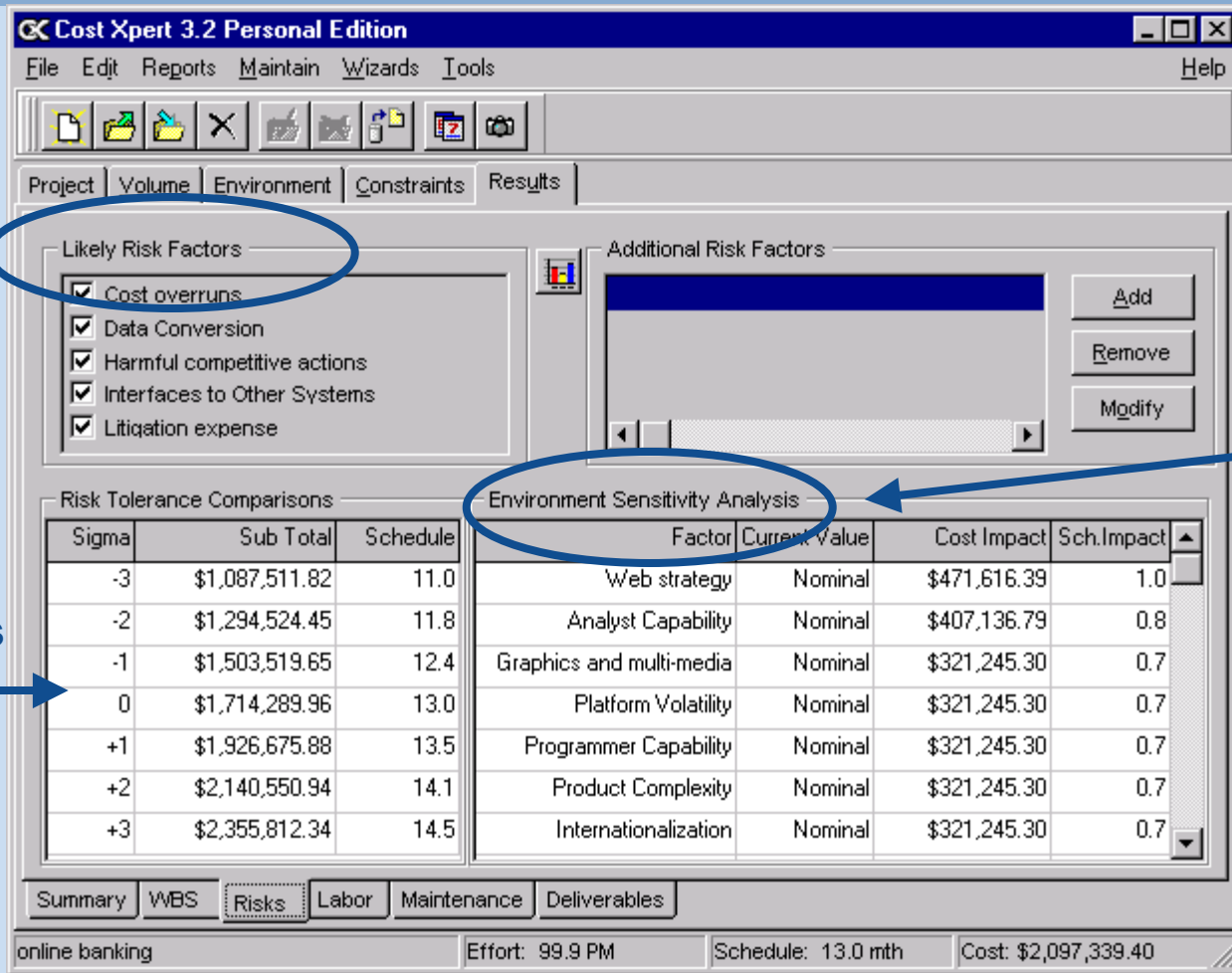
Labor Distribution Costs			
Strategist	\$251,148.89	Test/QA	\$1,139,545.47
Analyst	\$686,987.08	Copywriter	\$27,512.93
Designer	\$1,236,463.92	Art & Media	\$15,901.87
Programmer	\$1,742,727.42	Management	\$1,408,705.26

Summary: Effort, Schedule and Cost	
<b>Effort (Person-Months)</b>	<b>373.4</b>
Schedule (Months)	25.8
Sub-Total	\$6,508,992.84
Wage Inflation (Schedule>12)	\$574,183.99
System Integration Cost	\$1,171,618.71
<b>Final Cost</b>	<b>\$8,254,795.55</b>

Summary WBS Risks Labor Maintenance Deliverables

cubic Effort: 373.4 Pers-Mth Schedule: 25.8 Months Cost: \$8,254,795.55

# Risk Output



The screenshot shows the 'Cost Xpert 3.2 Personal Edition' software interface. The 'Results' tab is active, displaying risk analysis data. The 'Likely Risk Factors' section is circled in blue. The 'Environment Sensitivity Analysis' table is also circled in blue, with an arrow pointing to it from the 'Factor sensitivities' label. The 'Risk Tolerance Comparisons' table shows the impact of different sigma values on the project's sub-total and schedule.

**Likely Risk Factors**

- Cost overruns
- Data Conversion
- Harmful competitive actions
- Interfaces to Other Systems
- Litigation expense

**Environment Sensitivity Analysis**

Factor	Current Value	Cost Impact	Sch. Impact
Web strategy	Nominal	\$471,616.39	1.0
Analyst Capability	Nominal	\$407,136.79	0.8
Graphics and multi-media	Nominal	\$321,245.30	0.7
Platform Volatility	Nominal	\$321,245.30	0.7
Programmer Capability	Nominal	\$321,245.30	0.7
Product Complexity	Nominal	\$321,245.30	0.7
Internationalization	Nominal	\$321,245.30	0.7

**Risk Tolerance Comparisons**

Sigma	Sub Total	Schedule
-3	\$1,087,511.82	11.0
-2	\$1,294,524.45	11.8
-1	\$1,503,519.65	12.4
0	\$1,714,289.96	13.0
+1	\$1,926,675.88	13.5
+2	\$2,140,550.94	14.1
+3	\$2,355,812.34	14.5

Summary WBS Risks Labor Maintenance Deliverables

online banking Effort: 99.9 PM Schedule: 13.0 mth Cost: \$2,097,339.40

**Factor sensitivities**

**Likely risks for project type**

**Range depends on PERT size inputs**