Software Estimation with Cost Xpert

COCOMO Forum
October 22, 2003

www.costxpert.com
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

Define project → Estimate volume → Rate environmental factors → Provide project constraints → Assess results

- Lifecycle Costs
- Staffing
- Cost by Phase
- Cost by Activity
- Documents
- Risk Profile
- Defects
Volume Tab

Cost Xpert 3.3 Personal Edition

Module Name | Best | Expected | Worst | Mean | Std. Dev.
--- | --- | --- | --- | --- | ---
bl | 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

<table>
<thead>
<tr>
<th>SLOC</th>
<th>1-Function Points</th>
<th>2-Internet Points</th>
<th>3-Domino Points</th>
</tr>
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<tbody>
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</table>

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

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Constraints Tab

Cost Xpert 3.3 Personal Edition

Project | Volume | Environment | Constraints | Results |
--- | --- | --- | --- | --- |
75% | 100% | 130% | 160% Max. team size | 1 day | 5 days | 10 days |
Time-Cost Tradeoff | 76% | Minimum Customer Response Time | 1 days |
0% | 50% | 100% | 150% | 200% | 250% | 300% |
Plans and Requirements | 100% | Cushion $ | 0% |
0% | 50% | 100% | 150% | 200% | 250% | 300% |
Integration and Testing | 100% | -3 sigma | 0 sigma | +3 sigma |
0% | 5% | 10% | 15% | 20% | 25% |
Overlap | 0% | Risk Tolerance | -2 sigma |
0% | 50% | 100% | 150% | 200% |
Customer Response Time | 100% | Requirement Evolution | 0% |

cubic | Effort: 373.4 Pers-Mth | Schedule: 25.8 Months | Cost: $8,254,795.55 | Restore Defaults | Cancel all | Apply Changes
### Results Summary

#### Method

<table>
<thead>
<tr>
<th>Method</th>
<th>Effort (PM)</th>
<th>Schedule (mth)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLOC</td>
<td>373.4</td>
<td>25.8</td>
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<tbody>
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<td>1-Function Points</td>
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<tr>
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<td>0.0</td>
<td>0.0</td>
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<tr>
<td>4-UML Use-Case Pts</td>
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<tr>
<td>5-UML Class Method</td>
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</table>

#### Labor Distribution Costs

<table>
<thead>
<tr>
<th>Role</th>
<th>Cost</th>
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<tbody>
<tr>
<td>Strategist</td>
<td>$251,148.89</td>
</tr>
<tr>
<td>Analyst</td>
<td>$668,987.08</td>
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<tr>
<td>Designer</td>
<td>$1,236,463.92</td>
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<tr>
<td>Programmer</td>
<td>$1,742,727.42</td>
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<tr>
<td>Test/QA</td>
<td>$1,139,545.47</td>
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<tr>
<td>Copywriter</td>
<td>$27,512.93</td>
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<tr>
<td>Art &amp; Media</td>
<td>$15,901.87</td>
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<tr>
<td>Management</td>
<td>$1,408,705.26</td>
</tr>
</tbody>
</table>

#### Summary: Effort, Schedule and Cost

- **Effort (Person-Months):** 373.4
- **Schedule (Months):** 25.8
- **Sub-Total:** $6,508,982.84
- **Wage Inflation (Schedule×12):** $574,163.09
- **System Integration Cost:** $1,171,618.71
- **Final Cost:** $6,254,795.55
Risk Output

Range depends on PERT size inputs

Likely risks for project type

Factor sensitivities