



Estimating Your Way To Success

For what matters.



Presented by:

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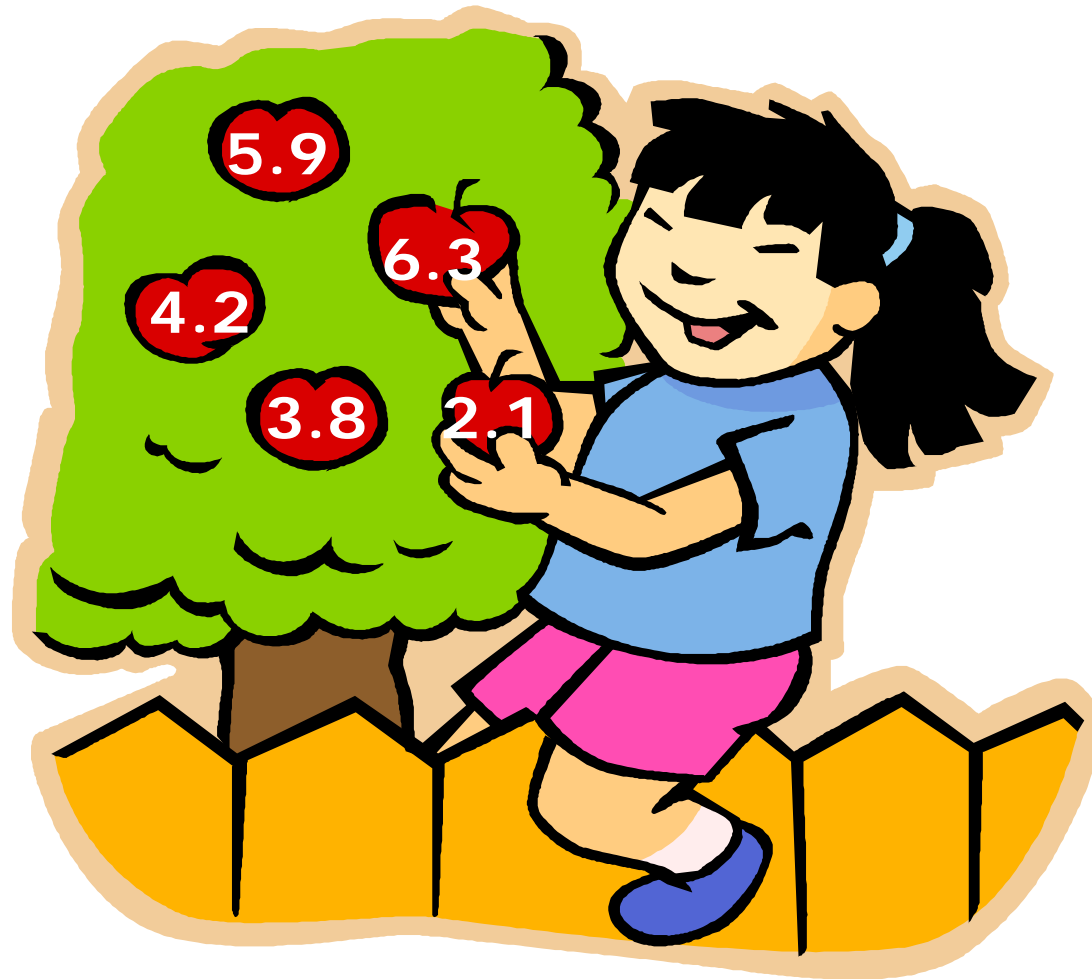
- Why Estimate?
- How To Estimate?
- Why Measure Results?
- How To Use Results

Why Estimate?



- Annual Budgets
- Project Business Cases
- Project Plans
- Process Improvement

- What do you know?
- How is it similar/different from what we did before?
- What do subject matter experts (SMEs) say?
- What is appropriate contingency factor / range?
- Document your assumptions
 - To capture guidelines for estimates
 - To compare with reality and explain variances
 - To provide a basis for estimating procedures
- Track and estimate change requests



Estimating next year's budget on your first day

What does the workload look like vs. last year?

- Same / More / Fewer projects?
- Same / Bigger / Smaller size?
- Same / More / Less complexity?
- How many of each?
- Same / New technology?
- Same / More / Less experienced resources?
- Internal / External / Off Shore resources?
- Constraints / Challenges?
- Synergies / Process Improvements?



Estimating the enterprise cost for Y2K

How much confidence do you have?

- Similarity to other projects?
- High level requirements definition quality?
- High level process definition?
- Organizational maturity / experience?
- Number of External / Internal interfaces?
- Capital / Operating Expenses?
- Hard Deadlines?

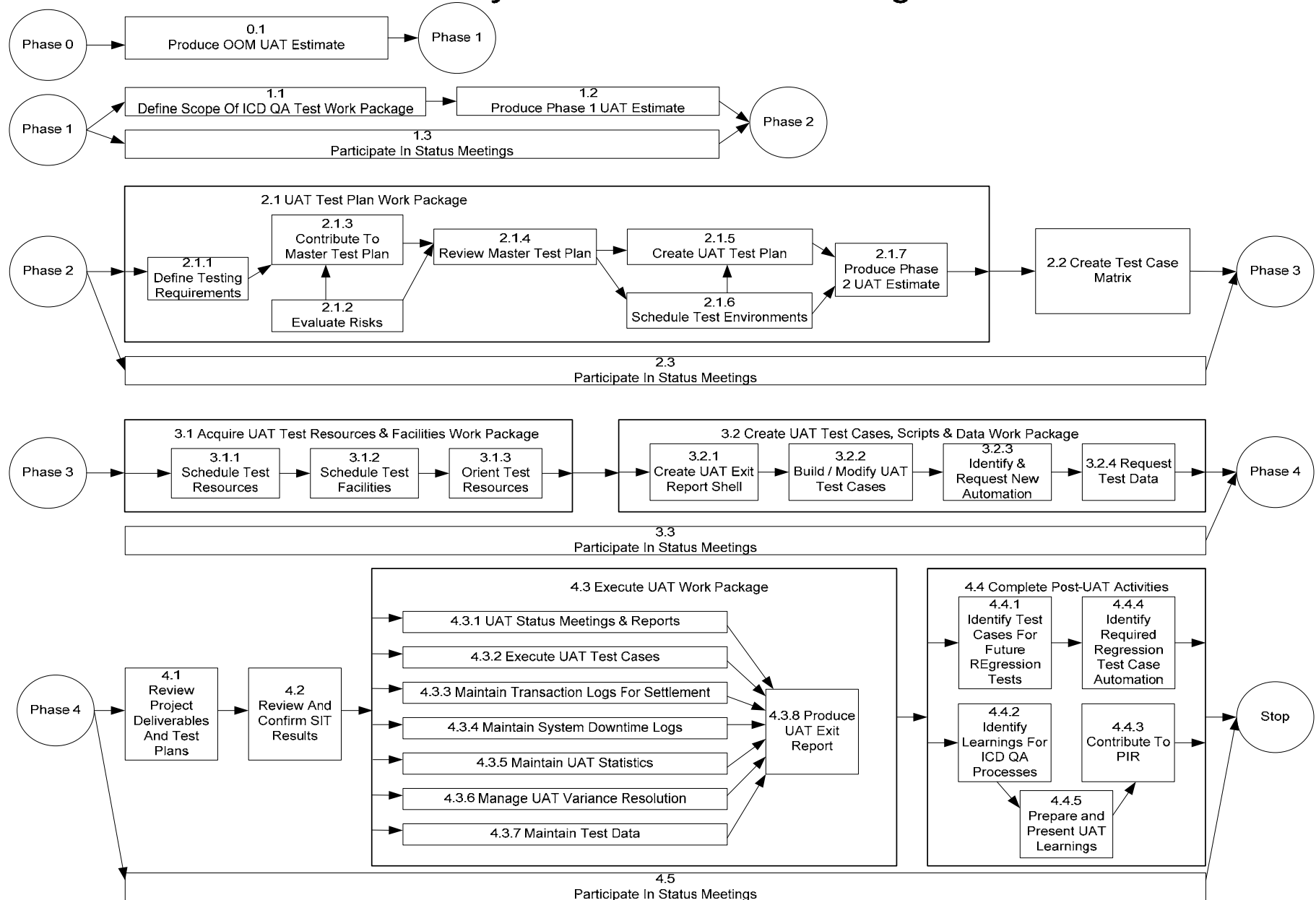


Realistic vs. wishful thinking project estimate

How does it compare with previous projects?

- Detailed requirements definitions quality?
- Detailed process definition?
- Default estimate values from history?
- Document major changes in assumptions

Internet Channel Delivery UAT Process Work Packages & Tasks



- Assumptions
- Entry & Exit Criteria
- Scope
- Builds & Cycles
- Environments
- Executions
- Resources
- Availability
- Other relevant factors

Assumptions

Initiative name	Release 42
Project type	IC Business Release
Project size	Large
MPM phase	Phase 2 - Requirements/Design
Date completed	23/09/2008
Completed by	QA Lead Name

Specific Assumptions

01. SIT Exit Criteria are:
02. UAT Entry Criteria are:
03. UAT Exit Criteria are:
04. UAT Scope:
05. UAT Cycles:
06. Environments
07. Estimates
08. Resources

Insert additional specific project assumptions here.

- Use Standard Work Breakdown Structure
- By Phase and Task (consider overlapping tasks)
 - Effort
 - Duration
 - Rates
 - Cost
- Set Default effort / resources by task based on
 - Application
 - Project Type
 - Project Size
 - Adjusted manually based on
 - Project Complexity
 - Project assumptions and unique factors

Standard Estimating Template



UAT Estimate Effort, Duration & Cost

		People	Effort (Work Days)	Duration (Business Days)	Initiative Duration (Business Days)
Phase 0 - Business Proposal					
Phase 1 - Initiation / Planning					
UAT Tasks	1.1 Define Scope Of Testing	1 QAL	5	15	15
	1.2 Produce Phase 1 UAT Estimate	1 QAL	4	15	
	1.3 Participate in Status Meetings	1 QAL	0	15	
...					
Phase 4 - QA UAT Testing					
Totals Summary					
Total Effort / Duration		99.3			172
Total Effort Cost		\$43,670			
Total Environment + Build Cost		\$0			
Total Cost		\$43,670			

Standard Estimating Template



Summary

Initiative name	Release 42		
Project type	Business Release		
Project size	Large		
MPM phase	Phase 2 - Requirements/Design		
Date completed	23/09/2008		
Completed by	QA Lead Name		
Estimated Effort (work days)	Total Work Days	Spent	Remaining Work Days
To end of UAT Exit Report (critical path)	94.8	2	92.3
After UAT Exit Report	4.5	0	4.5
Total	99.3	2	97.3
Estimated Duration (business days)	Total Business Days	Spent	Remaining Business Days
To end of UAT Exit Report (critical path)	161	5	156
After UAT Exit Report	11	0	11
Total	172	5	167
Estimated Labour Cost (\$)	Total Cost	Spent	Remaining Cost
To end of UAT Exit Report (critical path)	\$41,690	\$880	\$40,810
After UAT Exit Report	\$ 1,980	\$ 0	\$ 1,980
Total Cost of Change Requests	\$ 0	\$ 0	\$ 0
Total	\$43,670	\$880	\$42,790
Total Environment + Build Costs	\$ 0	N/A	\$ 0
Total Costs	\$43,670	N/A	\$42,790

Capture “Actuals” as well as Estimates to

- Find how good or bad your estimates are
- Set reasonable targets for accuracy
- Measure performance vs. targets
- Get values, variances & trends by project, project type
- Create/refine procedures, guidelines, targets
- Identify where to focus process improvement
 - Recurring problems
 - Large task efforts / durations

- Capture “Actuals” by standard Task & Phase
 - Start and End Dates
 - Effort
 - Duration
- Calculate differences between Estimates & “Actuals”
- Explain major differences

Measure Results - Standard Worksheet



Estimate & Actual Tracking Summary

Schedule			Task Effort (Workdays)			Task Duration (Business Days)			Phase Duration			
Start Date	End Date	Weekend Days	Estimate	Actual	Difference	Estimate	Actual	Difference	Estimate	Actual	Difference	Note

Phase 0 - Business Proposal

Phase 1 - Initiation / Planning

Phase 2 - QA Requirements & Design

Phase 3 - QA Test Construction

Phase 4 - QA UAT Testing

Change Request	Start Date	End Date	Estimated Effort (Workdays)	Estimated Task Duration (Business Days)					Note
CR 1			5	8					
			0	0					



UAT Estimates vs. Actuals Summary

Phase 0 - Business Proposal				Notes	
UAT Task	0.1 Produce OOM UAT Estimate	Effort (work days)	Estimated	3	
			Actual	2.5	
			Difference	0.5	
		Elapsed Time (business days)	Estimated	5	
			Actual	6	
			Difference	-1	
Phase 1 - Initiation / Planning				Notes	
Phase 2 - QA Requirements & Design				Notes	
Phase 3 - QA Test Construction				Notes	
Phase 4 - QA Testing				Notes	
Project Change Requests and Other Changes		Number of Change Requests		1	
		Effort (work days)		5	
		Duration (business days)		8	
Project Totals		Effort (work days)	Estimated	93	Delay for rework due to Change Request 1
			Actual	101	
			Difference	-8	
		Duration (business days)	Estimated	60	
			Actual	68	
			Difference	-8	

- Project Profile / Type
 - Application / Technology
 - Release / Maintenance
 - Size / Complexity
- Requirements and Use Cases
 - Number
 - Total / Average Effort
 - Total / Average Duration
- Architecture and Design
 - Application / Technology
 - Interfaces
 - Effort
 - Duration

Development

- Language
- Size – lines of code, function points, objects, components
- Validations – number and types
- Screens
 - Number
 - Total / Average Effort
 - Total / Average Duration
- Interfaces

- By Test Phase; e.g., DIT, SIT, UAT, Performance
 - Test Cases – No. created, No. writers, Average test cases / writer / day
 - Test Case Executions – Planned No., Actual No., No. testers, No. executions / tester / day
 - Environment Availability - % Available, Lost time
 - Builds – No., No. successful, Lost time
 - Cycles – No., Duration / Cycle
 - Variances – No., No. by standard type, severity, No. resolved / outstanding, Average fixes per day

- Save data centrally to support estimating
- Set regular timeframes for reviewing results
- Use “Actuals” vs. Estimates to identify
 - Tasks requiring greatest effort and duration
 - Where estimates need most improvement
 - Improved formulas / defaults for task estimates
 - Greatest reengineering opportunities / benefits
 - Performance targets for maximum variances
- Use findings to address issues and opportunities
 - Greatest obstacles to meeting targets
 - How to reduce time and effort

- Regulate
 - Estimating procedures, rules of thumb
 - Making estimates
 - Targets for good estimates
- Record
 - Estimates
 - Significant scope change estimates
 - Actuals
- Review
 - Differences between actuals and estimates
 - Root causes
- Revise
 - Estimating procedures, rules of thumb
 - Targets

- Why Estimate
- How To Estimate
- Why Measure Results
- How To Use Results

For more information

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"CIBC For what matters." is a TM of CIBC.