

# Project Breathalyzer

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## 1. Do you have a current, credible activity network supported by a Work Breakdown Structure?

- Have you identified your critical path items?
- What explicit provisions have you made for work that isn't on your WBS?
- Does the activity network clearly organize, define, and graphically display the work to be accomplished?
- Does the top-level activity network graphically define the project from start to finish, including all the dependencies?
- Does the lowest-level WBS show work packages the measurable tasks and short duration?
- Does each task on the network have a well-defined deliverable?
- Is each work package under budget control, expressed in labor hours, dollars, or other numerical units?

## 2. Do you have a current, credible schedule and budget?

- Is the schedule based on a project / activity network supported with a WBS?
- Is the schedule based on realistic, historical, quantitative performance estimates?
- Does the schedule provide time for holidays, vacation, sick days, etc?
- Does the schedule allow all the necessary quality assurance activities?
- Does the schedule account for resource overlaps?
- Is the schedule for the three to six months as detailed as possible?
- Is the schedule consistently updated at all levels in the Gantt, PERT, and Critical Paths views?
- Can you perform to the schedule and budget?

## 3. Do you know what software you are responsible for delivering?

- Are the system's operational requirement clearly specified?
- Are definitions of what the software must do to support the system operational requirements clearly specified?
- Are system interfaces clearly specified and if appropriate prototyped?
- Is the selection of the software architecture and design method traceable to system operational characteristics?
- Are descriptions of the system environment and relationships of software application to the system architecture clearly specified?
- Are specific development requirements explicitly defined?
- Are specific acceptance and delivery requirements explicitly defined?
- Are user requirements agreed to by joint teams of developers and users?
- Are system requirements traceable through the software design?

## 4. Can you list the current top ten project risks?

- Has a Risk Management role been assigned to the project?
- Are risks determined through established processes for risk identification, assessment, and mitigation?
- Is there a database that includes all non-negligible risks in terms of probability, earliest expected visible symptom, estimated and actual schedule, and cost effects?
- Are all project personnel encouraged to become risk identifiers?
- Is the database of top-ten risks updated regularly?
- Are user requirements reasonably stable?
- Do you know how the risks are changing over time?

## 5. Do you know your schedule compression percentage?

- Has the schedule been constructed bottom up from quantitative estimates, not by predetermined dates?
- Has the schedule been modified when major modifications in the software have taken place?
- Have developers and test personnel received training in the principle domain area, support software and tools?
- Have detailed unit-level and interface design specifications been created for maximum parallel developer effort?
- Does the project avoid extreme dependencies on specific individuals?
- Are people working abnormal hours?
- Do you know the historical schedule compression percentage on similar projects, and the results of those projects?
- Is any part of the schedule compression based on use of new technologies?
- Has the percentage of software functionality been decreased in proportion to the percentage of schedule compression?

## 6. What is the estimated size of your software deliverables?

- Has the project scope been clearly established?
- Were measurements from the previous projects used as a basis for size estimates?
- Were Source Lines of Code (SLOC) used as a basis for the estimates?
- Were Function Points (FP) used as a basis for estimates?
- Are the developers who do the estimating experienced in the domain area?
- Are estimates regularly updated to reflect software development realities?

## 7. Do you know the percentage of external interfaces that are not under your control?

- Has each external interface been identified?
- Have critical dependencies of each external interface been documented?
- Has each external interface been ranked based on potential project impact?
- Have procedures been established to monitor external interfaces until the risk is eliminated to substantially reduced?
- Have agreements with the external interface controlling organizations been reached and documented?

## 8. Does your staff have sufficient expertise in the project domain?

- Do you know what the user needs, wants, and expects?
- Does the staffing plan include a list of the key expertise areas and estimated number of personnel needed?
- Does most of the project staff have experience with the specific type of system being developed?
- Does most of the project staff have extensive experience in the software language being used?
- Are the developers able to proceed without undue request for additional time and cost to help resolve technical problems?
- Do the developers understand their project role and are they committed to its success?
- Are the developers knowledgeable in domain engineering – the process of choosing the best model for the project and using it throughout design, code, and test?
- Is there a domain area expert assigned to each domain?

## 9. Have you identified adequate staff to allocate to the scheduled tasks at the right time?

- Do you have sufficient staff to support the tasks identified in the activity network?
- Is the staffing plan based on historical data of level of effort to staff months on similar projects?
- Do you have adequate staffing for the current tasks and all tasks scheduled to occur in the next two months?
- Have alternative staff buildup approaches been planned?
- Does the staff buildup rate match the rate at which the project leaders identify unsolved problems?
- Is there sufficient range and coverage of skills on the project?
- Is there adequate time allocated for staff vacations, sick leave, training, and education?
- Are staffing plans regularly updated to reflect reality?

Derived from [www.spmn.com](http://www.spmn.com)

Also abstracted in many other sources, thank you Norm Brown