

**Cosgrove Computer Systems Inc.  
Software Engineering**

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**EXEMPLAR**  
**DEPOSITION QUESTIONS FOR EXAMINING COUNSEL**

8/30/200

Ref: 3/23/97 Dep. Questions, J Cosgrove to Y

Case: Y vs XXX

Dear Mr. Y:

As requested, I am proposing certain lines of questions to be included in the upcoming deposition of (JW), formerly lead programmer for the JJO project at XXX. As before I am only intending to suggest a general direction of inquiry, even though they are phrased as specific questions, the questions will be preceded by some background reasoning to clarify the objectives.

**Issues**

JW's claim that, in his expert judgment, correct software development process requires that completed functional specifications were necessary before the programs could be coded. He claims that this was the primary reason that XXX failed to perform on the JJO contract and that Y was responsible (at least partially) for this state of affairs.

**Objectives in Refuting the Claim**

Identify JW's Qualifications as an Expert in Software Development Process

Clarify JW's academic and professional credentials by questions directed at the usual degrees, years of experience, etc. Also important are his specific credentials in process methodology. This is a new field and few regular courses of study are available but many extension and short courses are offered. He can not be an expert in this area unless he can cite attendance and/or participation in software process activities. Organizations such as the Software Engineering Institute's Software Process Improvement Network (SPIN), Association for Computing Machinery (ACM), IEEE Computer Society or the Data Processing Management Association (DPMA) are examples of professional activities in the field. Most Cal State campus locations and the UC system offer many courses – both extension and short-courses, tutorials, etc. If he doesn't take courses and/or attend professional meetings on the subject, he is not able to defend his claim to be an expert. Has he ever presented papers or courses on the subject?

Determine JW's Experience in Creating and Using Functional Specifications for Software

Identify JW's personal experience with projects which used functional specifications (FS). Which (if any) did he have primary (or substantial) responsibility for creating. Ask him to describe the development process which used the functional specification(s). The FS is part of a larger organizational process. This includes contractual obligations expressed in the

specification, the project management steps used to implement the specification and track progress, customer acceptance criteria, etc. JW should be able to describe how all of this fits together if he is qualified.

Determine Whether XXX<sup>2</sup> Required Functional Specifications In All of Their Projects

This line of questioning establishes XXX<sup>2</sup> process as practiced in their normal operations. Many of the documents show a pattern of ad-hoc (or no) process. An established process is indicated by a standards in the content and format of a software specification as well as procedures for review and approval, customer concurrence, acceptance testing, etc. If documents which show evidence of this process do not exist, it is well-established by the profession that the organization is operating at an ad-hoc level. This means that that organization can not be relied-upon to meet their contractual commitments in software systems. This process model is called the Capability Maturity Model (CMM) and is well established as the standard in the field. Organizations which operate at low maturity levels have a clear pattern of failing to meet their system delivery obligations -- as happened with XXX<sup>2</sup>

Sincerely,

John Cosgrove, PE

Attachment: Proposed Questions

## Proposed Questions

### JW's Expertise

1. What is your formal training in Computer Science or Software Engineering – please cite degrees received, institutions, dates received, etc? Indicate courses and/or seminars on the subject attended.
2. How many years of professional experience do you have in the field? What were your previous jobs and titles? What is your current job?
3. Are you a formal member of organizations, special-interest-groups (SIG's), or committees in this field? Are you active in any software process or development methodology groups?
4. How frequently do you attend presentations in this field? Do you subscribe to journals on the subject? Which ones?
5. Have you made presentations or do you offer courses on the subject of software development methods? Cite instances if any.
6. Are you familiar with the Spiral Model life-cycle for software development? Do you feel that it would be a good choice for this type of system – given its human-interface focus? Would the incremental model be appropriate? What are the reasons that you would recommend one over the other?

### JW's Specific Experience

1. How many projects have you used FS's in your past experience?
2. Which of these FS's were your primary responsibility to create?
3. What specification standard(s) was used for the content and format of the FS?
4. How did the FS interface with the other elements of the development process (contract, reviews, testing, etc.)?
5. Describe your concept of a complete software development process which is suitable for a project of this type.

### XXX<sup>2</sup> Methods as Actually Practiced

1. How would you characterize the software development model used by XXX<sup>2</sup> – Waterfall, Spiral, Incremental, etc?
2. What type of FS was used on XXX<sup>2</sup> projects? Were there any projects which did not require FS's?
3. How did the FS interface with other steps in the development process such as: contractual obligations, project planning and tracking, testing, delivery and acceptance, etc?
4. Are you familiar with the CMM and its rating of an organization's ability to meet its software development obligations? How would you rate the XXX<sup>2</sup> maturity level?
5. How often were status reports made to the customer? Are there any copies of these reports after KM left? What were the customer responses?
6. Do you recall the details of any responses from the customer (i.e., JJO)? When did they indicate dissatisfaction with the project?
7. What response did XXX<sup>2</sup> make when customer complaints and/or requests were made? Are there records of these communications?
8. As an expert, did you feel that the XXX<sup>2</sup> responses to these requests were adequate?
9. In your opinion, why did JJO terminate the project?