Requirements Analysis Worksheet

Project Name:	Project Reference/ID No.:	Preparer's Name:	Preparer's Signature:
Customer:	Customer Contact:	Contact Phone No.:	Date Prepared:

1. Stability ***(Are the requirements changing even as the product is being produced?)***

a. Are the requirements stable?
If "no," what is the effect on the system?

Quality ☐

Functionality ☐

Schedule ☐

Integration ☐

Design ☐

Testing ☐

b. Are the external interfaces changing?

2. Completeness ***(Are requirements missing or incompletely specified?)***

a. Are there any "to be determined" issues in the specification?

b. Are there requirements you know should be in the specification but aren't? If "yes," will you be able to get these requirements into the system?

c. Does the customer have unwritten requirements or expectations?
If "yes," is there a way to capture these requirements?

d. Are the external interfaces completely defined?

3. Clarity (Are requirements unclear or in need of interpretation?)

a. **Are you able to understand the requirements as written?**
If "no," are the ambiguities being resolved satisfactorily?
If "yes," are there any ambiguities or problems of interpretation?

Add Comments Here:

4. Validity ***(Will the requirements lead to the product the customer has in mind?)***

a. Are there any requirements that may not specify what the customer really wants? If "yes," how are you resolving this?

Add Comments Here:

b. Do you and the customer understand the same thing by the requirements? If "yes," is there a process by which to determine this?

Add Comments Here:

c. How do you validate the requirements?

Prototyping ☐

Analysis ☐

Simulations ☐

5. Feasibility ***(Are requirements infeasible from an analytical point of view?)***

a. Are there any requirements that are technically difficult to implement? If "yes," what are they?

Add Comments Here:

If "yes," why are they difficult to implement?

Add Comments Here:

If "no," were feasibility studies done for these requirements?
If "yes," how confident are you of the assumptions made in the studies?

Add Comments Here:

6. Precedent ***(Do requirements specify something never done before, or that your company has not done before?)***

a. Are there any state-of-the-art requirements?

Technologies ☐

Methods ☐

Languages ☐

Hardware ☐

If "no," are any of these new to you?
If "yes," does the program have sufficient knowledge in these areas?
If "no," is there a plan for acquiring knowledge in these areas?

7. Scale ***(Do requirements specify a product larger, more complex, or requiring a larger organization than in the experience of the company?)***

a. Is the system size and complexity a concern?
If "no," have you done something of this size and complexity before?

b. Does the size require a larger organization than usual?

8. Performance ***(Are there stringent response time or throughput requirements?)***

a. Are there any problems with performance?

Throughput ☐

Scheduling asynchronous real-time events ☐

Real-time response ☐

Recovery timelines ☐

Response time ☐

Database response, contention, or access ☐

b. Has a performance analysis been done?
If "yes," what is your level of confidence in the performance analysis?

Add Comments Here:

If "yes," do you have a model to track performance through design and implementation?

9. Testability ***(Is the product difficult or impossible to test?)***

a. Is the software going to be easy to test?

b. Does the design include features to aid testing?

c. Do the testers get involved in analyzing requirements?

10. Maintainability ***(Will the implementation be difficult to understand or maintain?)***

a. Does the architecture, design, or code create any maintenance difficulties?

b. Are the maintenance people involved early in the design?

c. Is the product documentation adequate for maintenance by an outside organization?

11. Reliability ***(Are the reliability or availability requirements difficult to meet?)***

a. Are reliability requirements allocated correctly to software and hardware?

b. Are availability requirements allocated correctly to software and hardware?
If "yes," are recovery timelines any problem?

12. Safety ***(Are the safety requirements infeasible and not demonstrable?)***

a. Are safety requirements allocated correctly to software and hardware?
If "yes," do you see any difficulty in meeting the safety requirements?

b. Will it be difficult to verify satisfaction of safety requirements?

13. Look and feel ***(Will the system be difficult to use because of poor human interface definition?)***

a. Do you see any difficulty in meeting the human factors requirements?
If "no," how are you ensuring that you will meet the human interface requirements?

Add Comments Here:

b. Is it a throwaway prototype?
If "no," are you doing evolutionary development?
If "yes," are you experienced in this type of development?
Are interim versions deliverable?
Does this complicate change control?

14. Specifications ***(Is the documentation adequate to design, implement, and test the system?)***

a. Is the software requirements specification adequate to design the system?

b. Are the hardware specifications adequate to design and implement the software?

c. Are the external interface requirements well specified?

d. Are the test specifications adequate to fully test the system?

d. Will vendor data be accepted in verification of requirements allocated to COTS products?
If "yes," is the contract clear on that?

Add Comments Here: