

THE EXCEPTIONAL EXECUTIVE'S

# FIELD GUIDE

System  Software Development



# 100+

## QUESTIONS

That Lead Teams  
to Build SMART,  
AGGRESSIVE  
PROJECT PLANS



**ALAN WILLETT**

**oxseeker** | ˈɑksˈsɛkˌər | (*noun*)

1. A person dedicated to the calm pursuit of excellence.
2. A person who consistently inspires the best in others.

**Origin:** Ancient.

In Zen poetry the ox was the symbol of enlightenment. A famous series of “ox-herding” pictures demonstrated the path to enlightenment.



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## About the Field Guide Series

Field Guides are books written by experts who have significant experience in the field. The expert shares his/her pragmatic reality-based experience to help others not just survive in the field but to enjoy the experience and chaos of living and working in the wild.

I find businesses based highly on evolving technologies to be extremely wild and chaotic. I wrote this field guide for the leaders who want to not just survive in this environment, but to thrive.

ALAN WILLETT

Original - September, 2013

Updated - February, 2015

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## Update Notes

### Version 2.0 • September, 2014

The first version of this booklet was popular because it was useful. Here are a few of the comments I have received about the first version.

- “I keep this in my desk and pull it out before every project review meeting.”
- “I use this to get in the right mindset before I kick off any new initiative.”
- “I opened this book and I suddenly realized it wasn’t the usual marketing scrap. This is something I can use.”

I also received numerous suggestions, so the goals for version 2.0 were very simple.

- Keep it useful! Maintain the simplicity and assumption that people are experts and this is expert level guidance. This is not a training book.
- Eliminate “yes or no” questions. Make them open ended.
- Add the brilliant suggestions for more questions that have been suggested.
- Enable people to buy multiple copies of the hard copy book.

Enjoy version 2.0 and keep the feedback coming!



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Alan Willett

# An Overview



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Project teams should build smart, aggressive plans that enable them to make commitments to their management and ultimately their customers. A smart plan is one that is well thought out to provide the quickest, high-value option possible. The “quickest” refers to the design approach. Being quick should always be paired with commitments the team can keep and even beat.

I have found over and over again teams build plans and deliver results based on the questions that leaders ask. For example, one vice president asked repeatedly for software developers to, “hurry up and get the software to testers so they could start finding the defects.” The developers of course obliged and the testers found so many defects it took twice as long as development to find and fix enough of them to deliver a working product.

Building smart plans quickly with low effort requires leadership to ask the questions that drive the kind of results you want. In other words, this book of questions was created to set and reinforce expectations of excellence in the teams that build your products.

The questions are overlapping on purpose. I expect you to vary the questions and keep your teams thinking. This can be done by asking the right questions in as many diverse ways as possible over multiple project reviews.

For any project plan review, please add your own situational awareness and judgment. I expect you to customize the questions for your situation, eliminate questions that are irrelevant, and be sure to ask questions that are not listed here but critical to your organization.



# Oxseeker's Smart Questions™ for Software Development Projects

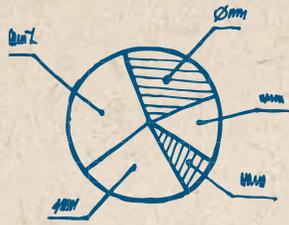
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## Customer Focus

All projects obviously have a customer, but often there is both a customer for the project and an end user of the product. All too often teams lose their focus on the customer. This happens because there are too many steps or people between the project team and the customer, or the team is distracted by a shiny new technology. Whatever the cause, asking questions like the following will ensure the project team has a clear understanding of the customer and their needs.

1. Describe your customer's most important needs from their point of view.
2. What experiences do team members have in the customer domain?
3. Who on the team has met with customers or used the products or services the customer uses? Describe the experience.
4. Why will the results of this project be useful to the customer? What value will they get?
5. How would a representative customer use the results of this project?
6. What is the most important attribute of this project? Is it content, cost (including staffing), or schedule?
7. What external milestones or events are driving the project schedule?
8. Describe the minimally viable product. With what points would a customer agree or disagree?
9. If the product is released in versions, what is the release schedule and how is the schedule determined?
10. How will the customer(s) be supported in the first weeks of using the new features?
11. How will the customer determine whether their needs have been met with this product?
12. How will the team ensure the product is meeting customer needs?

**Key Point:** Make sure the team is not delusional about customer needs. The team should be able to state their assumptions about customer needs and explain how they will meet them.

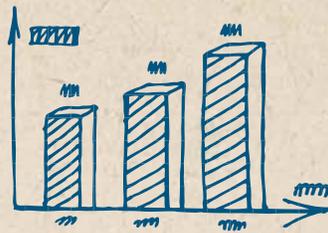


## Project Dependencies and Concerns

No project exists in a vacuum, yet many project plans make that assumption. Repeatedly I have seen project plans that were fine except for this key aspect, but like the Titanic with its assumptions, the projects sunk. Your questions here will make sure the team is thinking through any external issues they may face.

13. How does this project relate to other projects in the organization? Are there other projects dependent upon this one, and conversely, are there projects this project is dependent upon?
14. Which dependencies are most likely to put the project at risk?
15. For dependencies most likely to put the project at risk, what mitigation and contingency plans has the team put in place?
16. How and how often is the team monitoring schedule dependencies? Who is responsible for that task?
17. How is the team communicating with other projects about these dependencies?
18. What alternatives has the team considered that could eliminate or reduce dependencies?
19. Which team members have significant responsibilities outside of this project? What is the relative priority of other responsibilities compared to this project?
20. For team members, who works part-time on this project, and how is their available time calculated? Tracked?
21. If you could magically eliminate one dependency, what would it be and what would you gain by eliminating it?

**Key Point:** We can never know all of the risks associated with external dependencies during the initial planning sessions. The point is not to expose all the risks that may come up, but to make sure the team gets in the habit of thinking about these risks — and being proactive about them.



## Smart and Fast

When managers push teams because their estimates are too high, they lead teams to make smaller estimates. The Gantt charts may look better, but the dates turn into fiction. What managers really want to do is make sure the team has considered the best ways to make the schedule shorter in reality. These questions help the team to design a development strategy in a smart, fast way.

22. How many different design approaches did the team consider? Why did the team agree on a particular design approach?
23. Who has reviewed the team's design?
24. What design methods are the team using?
25. How much time is being spent in design compared to implementation and testing?
26. What could management provide to the team to help the project go faster?
27. What other people or skills added to the team would help the project go faster?
28. Are there third-party software components that should be licensed or purchased to enable a faster completion?
29. What assistance can management provide to help the team be more productive?
30. What defect-removal techniques are the team using? How is the team measuring their effectiveness?
31. What software assets can be reused to improve project speed without negatively impacting quality?
32. What short cuts are being taken to increase speed that will also increase technical debt? Are they worth it? Why?
33. What are three key things leadership could provide to help accelerate the project?

**Key Point:** There are two common tactics for driving from San Francisco to LA. Take the scenic but slow Route 1, or the expressway. Make sure your team has considered both of these options, as well as other options, such as taking an airplane, chartering a jet, or just staying in San Francisco and making a phone call.



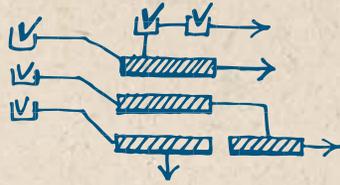
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## Building for the Future

Management is always balancing the need for short-term gains with long-term goals. This section will help make sure project teams are consciously engaged in this balancing act. In most organizations, management does not ask these kinds of questions and the teams do not share what shortcuts they have taken. Thus critical software assets become rusty and the company accumulates hidden technical debt. Even worse, it is just as often that people's skills get rusty. These questions will help you see the problems your teams are facing so that more intelligent choices can be made.

- 34.** Is the team approach going to add to the product's technical debt or decrease it? Explain.
- 35.** How easy will it be for the company to be able to build on the finished project for future enhancements?
- 36.** What are the obstacles to this product becoming an asset for the company's future?
- 37.** What software languages are being used? How large is the user base of these languages? Who provides support to these languages? What is the risk of obsolescence?
- 38.** What software support tools are being used? How large is the user base of these tools? Who provides support to these tools? What is the risk of obsolescence?
- 39.** What skills and talents are team members developing on this project?
- 40.** What skills and talents should team members be developing on this project?
- 41.** In what ways is the company at risk of falling behind the pace of technology?
- 42.** How will the team's approach build our talent assets?
- 43.** How will the team's approach build our product assets?

**Key Point:** As you build your projects, your teams should also be building a set of high-quality software assets. Additionally, your team should be continuously improving their skill set, which is an even more important asset to the organization.

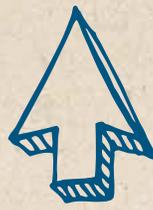


## A Smart Focus on Quality

When I ask a room full of software executives if they believe that removing defects early in the cycle is less expensive than removing them later, they all agree. A focus on quality is truly the most effective way to reduce project costs and finish sooner, yet most project plans do not focus on quality. The following questions guide teams to plan for high quality and to track as well as they schedule.

44. What methods are the team using to remove defects before customer delivery?
45. How is the team using historical data to control quality?
46. What is the expected cost of quality for this project? What are these numbers based on?
47. At what points in the process is the team tracking defects that were found and fixed?
48. How big is the legacy code base?
49. Which modules in the legacy code base have the highest defect density?
50. Has the team considered replacing the high-risk legacy modules? Why or why not?
51. How effective are the team's inspections? How does the team know?
52. How many customer scenarios for usage have been estimated? Tested?
53. How are user interface prototypes being validated with the customer?
54. What prototypes are being used for conceptual verification of new technological approaches?
55. How many defects the team calculates will remain in the product after test?
56. What are the possible (bad to worst) outcomes for the end users of our products?
57. Does the team believe it can deliver a near zero-defect product? Why or why not?
58. What can management do to help the team deliver a high-quality product?

**Key Point:** Delivering high-quality software quickly becomes a habit when a smart focus is applied early.



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## A High Confidence Commitment to Schedule

The “smart and aggressive” questions lead to the fastest, smartest approach. These questions are counter balance leading to commitments we can keep.

59. How does the size of this project compare with previous projects?
60. How does the schedule for this project compare with similar projects?
62. What methods did the team use to make time and schedule estimates? What was the level of granularity of the estimates?
63. How is the team tracking the plan? To what level of granularity?
64. How likely is it that this project will finish on schedule?
65. How many days (or weeks) of data is needed to know how accurate the estimates are?
66. How did the team’s plan account for out-of-office times, planned or likely? (Vacation, holidays, conferences, customer site visits, training, etc.)
67. If you have rate data (e.g. productivity), how does this plan compare to similar projects?
68. How many task hours per week is the team planning compared to their historical data?
69. How are risks and issues being managed by the team?
70. How much time does the plan allocate for growth based on estimates or tasks missed?
71. A committed team is most likely to manage the schedule to success. The following questions help you judge this:
  - What parts of this project are most exciting for you?
  - Will this project provide a good experience for the end user?
  - Is the project team dedicated to delivering on their project plan commitments?

**Key Point:** Some executives have expressed concern that if a team builds a conservative schedule, they will just relax. My answer is that a leadership issue is not a team issue. Teams like to win. The best case is to build a conservative schedule and inspire your team to win and deliver on-time or, better yet, early. That is the challenge of exceptional leadership.



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## Anticipating Change

No amount of planning will prevent the plan from changing when it meets reality. The questions in this section will lead your team to acknowledge reality, and better yet, anticipate it.

- 72. How much growth in requirements does the team's plan assume?
- 73. What requirements are most likely to change?
- 74. How will the team evaluate, manage, and track requirement change requests?
- 75. What new requirements do you anticipate to occur before project completion?
- 76. What other commitments do team members have that could take priority over this project (inside or outside of work)?
- 77. Which of the project dependencies are most volatile? What interruptions do you anticipate from management?
- 78. What are the top risks to the project?
- 79. What things are you concerned about?
- 80. What things could go wrong?

**Key Point:** Teams often complain that it is hard to hit a moving target. These questions make it clear that the team's job is to anticipate a moving target. Instill this habit early by ensuring all projects start with a good plan that you have reviewed.



## Data-Based Feedback Loops

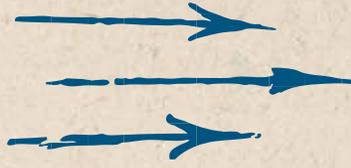
Teams will consistently deliver great projects when they manage with experience, judgment and data. I give these questions with a notice of caution as well. If teams feel they will be “punished or rewarded” for answers, they will provide the data you want to see, not what is accurate and useful to the team. It is important to be aware of what your teams are ready and able to answer.

*“In God we trust.  
All others bring data.”*

— Edward Deming

81. What project management tools are in use? What does the team like about these tools? What do they hate?
82. How often is the project plan updated?
83. What are the barriers to having accurate project management data?
84. How do team members track task time? Is this working well for them?
85. How often does the team meet? What are the primary topics covered?
86. How often are team members reviewing their personal plans?
87. What schedule deviation would trigger a need to revise the plan?
88. What data is the team using to manage quality? How is it collected? How useful is it to the team?
89. How do you track defects?
90. What data does the team and management use to make decisions?
91. What tools are the team using to capture data? What does the team like about these tools? What do they hate?
92. How do you compare your size and effort estimates to actual data?

**Key Point:** Perhaps the most important questions to ask your team are: Are you getting the data you need to run this project well? Do you need any help I can lend?”



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## A Plan for Learning

Too many organizations complain, “We write lessons learned, we just do not read them.” One of the most impactful actions an executive can take is to make sure organizational learning is part of the DNA of the project plan. Asking these questions with follow up actions will make this happen.

- 93.** How was historical data from previous projects used when planning this project?
- 94.** What projects are similar to this project? What problems did previous projects like this one face, and how are you dealing with those problems?
- 95.** How will lessons learned be captured so they will be useful for future projects?
- 96.** How will the team capture process and product improvement suggestions throughout the project? Where will it be stored? Will others have access?
- 97.** At what point(s) in the project has the team scheduled time for reflection and learning? How much time is scheduled?
- 98.** What data will the team review during these times of reflection and learning?
- 99.** How will the team provide to others the lessons learned?
- 100.** How will the team ensure knowledge of this product is shared outside the team?
- 101.** How does the team plan to share learning throughout the project? (Ideas could include design walkthroughs of works in progress or including external developers on inspections)

**Key Point:** Each of these questions should lead to short exercises that have a high return in value for the individuals and the organization.



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## A Plan You Believe In

Perhaps the most vital questions are for you, the leader, after you complete the project plan review.

- 102.** Do you believe the team adequately understands the customer needs? Why?
- 103.** Does this project fit in well with the portfolio of projects in your organization? Why?
- 104.** Why do you believe the team has made a smart plan that will meet customer needs?
- 105.** What talents are being developed on this team that will provide a basis for future success?
- 106.** Will the team's output create assets for your company to build on?
- 107.** How do you know the team's schedule is realistic?
- 108.** How well will the team manage the pressures, challenges and changes the project will face?
- 109.** How are you demonstrating your commitment to supporting this team in reaching a successful conclusion?

**Key Point:** Listen to your inner music. If you feel uncomfortable, either ask the team more questions or provide them with specific guidance on what expectations they are missing and ask them to come back with an improved plan. If you feel confident the team can meet and beat the commitments made in the plan, celebrate. Celebrate with the team.

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Do you have material that you think should be added to this booklet?

Send your suggestions to [alan@oxseeker.net](mailto:alan@oxseeker.net)



## About Alan Willett, President of Oxseeker, Inc.

Alan is the paradigm shifter—galvanizing individuals and organizations to new levels of thinking and performance. With a customized and action-oriented approach, he helps organizations around the world build cultures of excellence.

### Services:

Dramatically improve the way your organization does business.

#### Consulting

Move your organization from talking about quality to consistently delivering high-quality products and services to your customers. From executives to individual contributors, transform your organization's process in a measurable way.

#### Workshops

Cultivate success for yourself, your team, and your entire organization. Customized for each group, Alan Willett's workshops enable participants to develop and practice the mindset and skills required to produce high-impact results. Topics include organizational culture, effective change, team leadership, and software development best practices.

## **Alan Willett has been building his mastery for 30 years, and it all started on his father's dairy farm.**

Learning from his father, whose farm consistently won awards like "best dairy of the year," Alan realized that his father's success all came down to his mindset about the farm, and how he organized his work.

Before his work as a consultant, Alan forged 20 years of deep, diverse experience building and delivering superior integrated software-hardware products

to the marketplace. Originally a software engineer, he quickly took on management positions as a result of his strong organizational skills and commitment. At Xerox, he was part of the management team that created Xerox's first ever digital print production system.

Alan has a Bachelor's Degree in Computer Science and a Master's Degree in the Management of Technology and Organizational Change. He designed his master's degree around the art of culture-change in the fast-paced world of technology. In his career, Alan has worked side by side with executives and leading experts from around the world.

### **Mentoring**

If you are truly committed to raising the bar and taking ownership of your work experience and performance, consider mentoring with Alan.

Oxseeker coaching and mentorship programs serve to accelerate a leader's learning curve while also improving his or her life-balance.

### **Professional Speaking**

Ignite innovation. Jump-start your motivation and that of your team. Gain industry leading insight. And all you have to do is listen. Engage Alan for your next keynote speech, convention breakout, motivational program, presentation, or workshop.

# How We Do What We Do

## A Focus on Results

Build sustainable change by focusing on the results you need. Typically clients receive a tenfold return on their investment with Oxseeker, or more.

## A Fast Pace

Meaningful improvements can be achieved at a faster pace than you might expect. Work with Oxseeker to quickly identify key issues and effective improvement strategies.

## A Challenging View

Because the focus is on the results, you will be challenged with at-times differing views on the root causes of problems—even if they are difficult to hear.

## Collaboration and Customization

To achieve great results, you need someone who takes a collaborative approach to create solutions that best fit the needs of your unique situation. The goal is to build skills and knowledge within your organization so you can continue to achieve the results you want.

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“ I came to know Alan and his work quite well and have been particularly impressed with his ability to recognize the essence of complex issues, to define practical solutions, and to convince management and team members to implement these solutions.

Watts Humphrey, 2005 recipient of USA Presidential Award  
of the National Medal of Technology

“ Alan’s enthusiasm and inspiration is contagious and his constant optimism and true-life experiences were very refreshing. The people side of life and work is the most difficult and interesting — and Alan shared many new avenues, without losing hope in our fellow humans even when it’s not always smooth sailing.

Catherine Sealby, Nedbank, South Africa

“ Thank you Alan for the customized approach you took with my mentoring. I learned a lot and my confidence level has sky rocketed. I wish everyone could have a mentor like you!

Lilana Cazangiu, TSP Coach, Oracle

“Many consultants have helped our organization.  
Alan has had a more positive impact than anyone else.

Ed Battle, Division Manager, NAVO N64

“Alan is world class. He provided great value to the Gorges  
business immediately. He quickly understood our organization’s  
needs and customized larger-scale techniques to just  
the right size for our company culture.

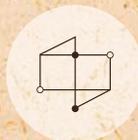
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